Leadership Behaviors for Facilitating Adaptive Work of Family Members of Seriously Ill ICU Patients (S701)

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Objectives
• Identify adaptive challenges faced by family members of seriously ill patients in the ICU.
• Identify adaptive work carried out by family members as they navigate discussions of limiting life support.
• Identify ways that Healthcare Professionals can support adaptive work.

Original Research Background: Family members of seriously ill patients in the ICU encounter many challenges as they face the possibility that their loved ones might die. Understanding how family members respond to these challenges is crucial to developing ways to support them. The Adaptive Leadership framework describes how people adapt to challenges and learn behaviors that facilitate adaptation.

Research Objectives: To understand whether this framework could be applied to families facing the uncertainty of critical illness.

Methods: This prospective, qualitative, descriptive study conducted narrative-style interviews with families of patients identified by a physician as being at high risk of dying. Using qualitative content analysis, we analyzed the interviews of 20 family members who participated in discussions about limiting life support. We used the Adaptive Leadership framework to develop provisional codes looking for evidence of adaptive challenges and adaptive work on the part of the family members and adaptive leadership behaviors on the part of the healthcare providers (HCP).

Results: The family members faced multiple adaptive challenges, including rapid fluctuation in the condition of the patient, perceptions of a very rapid shift from curative to palliative focus, and failure of the patient to respond to treatment. Adaptive work included seeking and processing information, maintaining hope, moving toward acceptance, making decisions, and achieving closure. Adaptive leadership behaviors included assuring comfort and nonabandonment, clarifying uncertainty, collaborating, discussing options, making recommendations, reframing hope, and strengthening the therapeutic relationship by communicating with compassion and honesty.

Conclusions: These findings suggest that family members are better able to adapt to challenges when they experience HCP behaviors that support their adaptive work.

Implications for Research, Policy, or Practice: Interventions developed within this framework would tailor HCP behaviors to the adaptive challenges that family members face and the adaptive work that they have done, so that HCPs can best support family members as they navigate the challenges of being asked to make difficult EOL decisions.

Underserved Women at End of Life: A Narrative Intervention to Improve Quality of Life (S702)

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Objectives
• List strategies for the ethical inclusion of underserved patients in end-of-life research.
• Identify the most pressing quality-of-life issues that affect medically underserved and low-SES patients at end of life.
• Identify underserved patients’ barriers to discussing end-of-life concerns with family and healthcare practitioners.

Original Research Background: The burden of cancer mortality is disproportionately borne by underserved women. What is known about the experience of the end of life (EOL) generally, including ways to improve quality of life (QOL), may not apply to underserved women.

Research Objectives: In order to develop an approach to EOL care that addresses QOL in this population, we developed and tested a patient-centered, relationship-based intervention to reduce suffering at the EOL by enhancing meaning.

Methods: The study population included 55 people in 15 networks of underserved women with advanced cancer and the patients’ primary informal (family/friend) caregivers, physicians, CAM practitioners, and hospice nurses. This NIH-funded study is a before-and-after, mixed-method, exploratory, community-based participatory research project. We studied women’s
experiences of the EOL and tested the feasibility of a narrative QOL intervention, the “ethical will”—a document that expresses an individual’s values, beliefs, life lessons, hopes, love, and forgiveness. We conducted in-depth, semistructured interviews with all participants and administered visual-analog-type QOL scales pre/post intervention. We coded verbatim transcripts using qualitative thematic analysis and reconciled differences in interpretation through refined definitions and recoding.

Results: We recruited 55 participants and conducted 111 interviews. We demonstrated the feasibility of enrolling terminally ill participants, administering the intervention, and obtaining measurements as patients’ health deteriorated. Of the 24 visual-analog-type QOL scales, 9 showed a change in the expected direction of 1 point or more and 6 of these were statistically significant, despite the small sample size. Thematic analysis revealed that patients’ concerns regarding financial challenges are not only most salient, but also far more pressing than cancer-related health issues.

Conclusions: Symptoms relating to psychological distress and existential concerns were more prevalent than pain and other physical symptoms in this community sample.

Implications for Research, Policy, or Practice: The process of finding meaning through creating a narrative legacy shows promise for decreasing suffering at the EOL for underserved women with metastatic cancer.

Prognostic Factors in Patients with Advanced Cancer after Palliative Urinary Diversion (S703)

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Objectives
• Reiterate average survival in cancer patients who receive palliative urinary diversion.
• List prognostic factors in cancer patients receiving palliative percutaneous nephrostomy insertion.

Original Research Background: Patients with advanced cancer commonly develop ureteral obstruction. Percutaneous nephrostomy tube insertion can help relieve this obstruction and prevent renal failure. However, it can worsen the quality of life. It is important to identify patients who will most likely benefit so that they can be adequately counseled.

Research Objectives: To identify prognostic factors in patients with malignant ureteric obstruction.

Methods: Electronic medical records were retrospectively reviewed for patients with TNM stage III and IV cancer who received percutaneous nephrostomy tube insertion between January 2011 and December 2013.

Results: 115 patients were identified. Parameters tested for predicting survival were selected after review of relevant literature. Factors analyzed were: age, gender, unilateral vs bilateral hydronephrosis, degree of hydronephrosis, presence of one or more of the common metastasis sites (lung, bone, liver, and retroperitoneal lymph nodes), pleural effusion, ascites, serum creatinine, hemoglobin, and albumin. By the end of the study, 28 patients were still alive, 87 patients were dead. Median survival was 7.7 months, 95% CI 4.4-10.5 months, range 2-963 days. On univariate analysis, factors associated with a shorter survival were: ascites (P value 0.004), pleural effusion (P value 0.023), serum albumin <2.5mg/dl (P value 0.002), bilateral hydronephrosis (P value 0.088), presence of at least one of the common metastasis sites (P value 0.08). Factors with a P value <0.1 were entered into multivariate analysis. Two factors were associated with significantly shorter survival: presence of ascites (P value 0.03) and low serum albumin (P value 0.04).

Conclusions: Survival in patients with malignant ureteric obstruction can widely range from few days to few years. Low serum albumin and the presence of ascites are independent risk factors associated with a poor prognosis in patients with advanced malignancy and malignant ureteric obstruction.

Implications for Research, Policy, or Practice: Our data suggests the need for a multicenter prospective study to develop and validate a model to predict survival in malignant ureteric obstruction.

The Interdisciplinary Hospice “Healing the Healer Group”: Preliminary Evaluation of a Pilot Program Fostering Reflective Professional Practice (S704)

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Objectives
• Summarize the impact of stress, compassion fatigue, and burnout on hospice professionals and the role of reflective practice in professional and personal development, formation, and well-being.
• Describe in-depth one approach to support reflective practice, formation, and well-being, piloted at HHCRI—the interdisciplinary “Healing the Healer Group.”
**Background:** Hospice professionals engage in intense, emotionally charged, clinical encounters daily. Evidence regarding compassion fatigue and burnout among healthcare providers has prompted several authors to call for workplace interventions to prevent these potential negative consequences of otherwise meaningful work. However, few interventions are described and evaluated in the literature.

**Objectives:** We developed a pilot "Healing the Healer Group" for hospice interdisciplinary teams, aimed at using reflective practice to foster professional formation and decrease burnout.

**Educational Approach:** We drew from several documented approaches to develop a model tailored for hospice professionals. In summer 2014 we piloted a monthly group for clinicians (RNs, MSW, chaplains) and a separate group for aids, on one hospice team. The facilitator, the team's medical director, has had extensive experience facilitating small groups. Format includes: relaxation exercises, discussion of a spontaneous “case” volunteered by a participant, group reflections regarding complexities of the case, and practical approaches to issues raised.

**Evaluation:** A multimethod qualitative approach, including analysis of session field notes, written participant feedback, and semistructured participant interviews. Data gathering is ongoing. Analysis, conducted by two researchers, uses the immersion crystallization method. IRB approval obtained.

**Preliminary Results:** All hospice team members have actively participated. Participants’ reflections reveal rich experiences and a deep desire to provide compassionate care. Early case themes: witnessing suffering; helplessness; receiving family anger; emotional attachments; boundaries; loss; guilt; being a healer. Initial feedback is positive: “we really need this,” “I thought only I felt this way.” Strengths: small group size; “safe” environment. The medical director as facilitator appears an asset—“someone who knows what we are going through.” Qualitative interviews will be conducted in December 2014.

**Conclusions:** This pilot Healing the Healer Group appears to have the potential fill a significant need in the professional lives of hospice workers. Further study is needed.

**Implications for Practice:** May improve quality of care and workforce retention.

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**Palliative Needs of Kidney Health Professionals, Barriers to Provision of Quality Palliative Care, and Recommendations from Survey Participants (S705)**

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**Objectives**

- Identify at least 3 unmet palliative care needs identified in the survey.
- Name at least 3 barriers to the provision of patient-centered palliative care to dialysis patients identified in the survey.
- Name at least 2 currently available resources that could be helpful to kidney and palliative professionals in meeting palliative needs of their patients with chronic kidney disease.

**Original Research Background:** In the summer of 2013, the Coalition for the Supportive Care of Kidney Patients (CSCKP) conducted an online survey of the needs and priorities of kidney health professionals and dialysis staff in regards to their ability to manage the palliative care needs of patients with advanced kidney disease. These surveys were part of data-gathering on the part of the CSCKP which helped to inform the development of the CSCKP strategic plan.

**Research Objectives:** Identify palliative care needs of kidney dialysis health professionals, the barriers to high quality palliative care delivery, the awareness of currently available kidney palliative resources on the part of kidney health professionals, and the proposed recommendations to address unmet palliative care needs.

**Methods:** Online survey of dialysis staff and members of the Renal Physicians Association (n=540).

**Results:** On a scale from 1 (needs not met) to 5 (needs met exceptionally well), respondents scored their dialysis center as less than 3 for spiritual support and bereavement support. The only need rated higher than 4 was care coordination within the renal team. The top three barriers to high quality palliative and end of life care —ratings above 3.25 on scale of 1 (not a barrier) to 5 (very significant barrier)—were:

- No formal mechanism (such as a predictive algorithm) for identifying patient at high risk of dying within 6 months.
- Patient reluctance to discuss.
- No specific policy to follow for providing end-of-life care.

**Conclusions:** There are many unmet palliative needs of kidney patients and kidney healthcare professionals, numerous barriers to provision of patient-centered care, and a gap between available resources and awareness and use of resources. Many useful recommendations were offered from frontline providers.

**Implications for Research, Policy, or Practice:** This and other data informed the CSCKP Strategic Plan, which has already resulted in initiatives to address identified needs, and planned initiatives in the future to address gaps.
Exploring the Comparative Effectiveness of Video and Paper Decision Support Tools for Advance Care Planning: A Multiple Criteria Decision Analysis (S706)

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Objectives:
- Understand the advantages of one type of decision support tool (DST) over another for advance care planning (ACP).
- Compare these two types of DST’s for ACP and match a tool type to their own and their patient’s needs.

Original Research Background: Multiple paper-based and video-based decision support tools (DST) for advance care planning (ACP) exist and the advantages of one type or the other are unclear.

Research Objectives: To explore the comparative effectiveness of video and paper DST for ACP.

Methods: Researchers conducted a patient-centered multiple criteria decision analysis to compare video ACP DST against paper ACP DST across four broadly conceptualized outcome categories: (i) informed treatment choice; (ii) ACP status; (iii) opinions regarding ACP instrument; and (iv) patient-centered outcomes. Researchers identified studies that evaluated video or paper ACP DST, assigned each study a quality rating, and abstracted and categorized study outcome data. Using study quality ratings and the categorized study outcome data, researchers calculated an outcome category score and a standard error for the video DST and the paper DST. Differences between the video and paper outcome category scores were taken to indicate the DST format that favored a particular outcome category.

Results: Three outcome categories—informed treatment choice, opinion of ACP instrument, and patient-centered outcomes—each favored the video DST format (p<0.001). The outcome category for ACP status favored the paper DST format (p<0.001).

Conclusions: While video ACP DST formats were favored over paper DST formats for three out of the four outcome categories, the analysis does not account for patient preferences among the four outcome categories. The choice to use a video or paper ACP DST could vary depending on how patients prioritize the four different outcomes. Future research needs to identify patient preferences for these outcome categories to meaningfully assess which format best meets patient needs.

Implications for Research, Policy, or Practice: The optimal type of decision support tool—video as compared to paper—will vary with the goals of the provider and the patient.

Opioid Induced Pruritus: the Need for Palliative Care for a Palliative Medicine (S707)

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Objectives
- Give the prevalence of opioid induced pruritus in a pediatric population.
- List at least 3 main risk factors for the development of opioid induced pruritus (OIP).

Original Research Background: Opioids are frequently utilized in the pediatric hematology and oncology population for pain control. Pruritus from opioids can be as distressing and debilitating as pain. Little is known about opioid-induced pruritus (OIP) in the pediatric population, and even less in the pediatric hematology and oncology population.

Research Objectives: This study sought to assess the prevalence and characteristics of OIP in the pediatric hematology and oncology population admitted to Virginia Commonwealth University Health System between June 2008 and December 2012.

Methods: A retrospective chart review was performed. Descriptive statistics were calculated for pruritus, predictor variables, and relevant covariates with Chi-square and Wilcoxon rank-sum tests to detect differences in the covariates and predictor variables by pruritus status. Poisson regression was used to determine the association between the predictor variables and pruritus. SAS version 9.3 was used for all analyses.

Results: The incidence of OIP was 5.98% for the final sample size (n=435). Multiple predictors were significant in bivariate analyses. In adjusted Poisson regression: morphine was 12 times more likely to cause OIP compared to those who were in the other opioid group (p=0.005); patients with allergies were almost 3 times more likely to have OIP compared to patients without allergies (p= 0.01); and the risk of pruritus increased by approximately 14% with every one-unit (mg/kg) increase in the dose of opioid (p= 0.007).

Conclusions: The incidence of OIP for the pediatric hematology and oncology population was similar to previous studies (mainly in adults). Type of opioid and dose of opioid were also found to be important predictors of OIP in the current study. An unexpected finding was allergies being an independent risk factor for OIP.

Implications for Research, Policy, or Practice: Further studies are needed to continue to elucidate OIP in the pediatric population.
Novel Tool Reveals Varied Life Priorities of Advanced Cancer Patients: “Living as Long as Possible” Generally not a Top Priority (S708)

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Objectives
• Understand the importance of identifying the key life priorities of patients with serious illness.
• Explain the development of the Life Priorities Survey as a novel instrument to measure patient outcomes related to goals of care at the end of life.
• Describe the priorities that patients identify in the top three as elucidated in our study, and how the life priorities scale correlates with patient choice of care plan.

Original Research Background: Many oncology patients do not receive goal-consistent care at the end of life. Identifying patients’ priorities allows better tailoring of care plans to meet patient goals.

Research Objectives: To identify life priorities important to advanced cancer patients; to determine if ranking of “live as long as possible, no matter what” correlates with choice of comfort-focused versus life-extending care.

Methods: As part of a single institution study, cancer patients at risk of death within a year were systematically enrolled and surveyed about their life priorities.

Results: 174 advanced cancer patients (median age=60) completed at least one life priorities survey. Almost all patients (97.5%) rated the following as important: being at home, physically comfortable, mentally aware, spiritually/emotionally at peace, independent, having medical decisions respected, not being a burden, supporting family. One-fifth (22%) rated “living as long as possible, no matter what” as not important at all; 23% of patients ranked “living as long as possible” among their top three goals. The goals most frequently ranked among top three were mental awareness (46%), comfort (41%), and being at home (32%). Patients who ranked the goal of “living as long as possible” in the top three were highly likely (95%) to choose a care plan focused on extending life, even if that meant more discomfort; patients who did not rank “live as long as possible” in top three were highly likely (74%) to choose a plan focused on relieving discomfort, even if that meant not living as long (tetrachoric correlation for two rating scales = 0.89 (95% CI 0.78-0.99)).

Conclusions: Patients have multiple and variable priorities besides living longer. The life priorities scale is a novel tool to identify patient goals.

Implications for Research, Policy, or Practice: Clinicians cannot assume living as long as possible is a top patient priority, and should ask patients directly about priorities in formulating a treatment plan.

Reduced Symptom Burden After Visiting an Outpatient Supportive Oncology Clinic (S709)

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Objectives
• Describe components of symptom assessment for an outpatient oncology population and symptom burden among this population.
• Identify symptoms that were attenuated after treatment at outpatient oncology clinics.

Original Research Background: Outpatient palliative care in supportive oncology clinics (SOC) is growing and has shown promise in controlling symptoms.

Research Objectives: We sought to investigate the impact on symptom burden of a SOC in a National Cancer Institute-designated Comprehensive Cancer Center.

Methods: New and returning SOC patients referred from our health system’s oncologists from November 2011 through May 2014 completed the Condensed Memorial Symptom Assessment Scale plus a sexual dysfunction structured assessment. Visits include a structured symptom assessment and personalized treatment plan from the clinic’s part-time physician and/or nurse practitioner. Patients rated from 0-4 how bothersome 15 cancer symptoms were. Descriptive statistics were calculated. We used the Wilcoxon signed rank test to compare symptom scores at patients’ first and second visits.

Results: 135 patients had multiple SOC visits. Mean age was 54.7 (SD 12.5) years. 55.3% were female. The most common
cancers were breast, lung, and head and neck (18.1% each). Median time between visits was 29 days (mean: 52.8, range: 2-446). The most bothersome symptoms at baseline were pain (mean 3.1, SD 1.3), lack of energy (2.4, SD 1.3), and difficulty sleeping (2.1, SD 1.6). Least bothersome were dyspnea (0.8, SD 1.1), sexual problems (0.9, SD 1.4), and nausea (1.0, SD 1.3). Energy, pain, drowsiness, constipation, sleep, worrying, sadness, and nervousness were significantly improved at follow-up with reductions between 0.2 (drowsiness) and 0.5 (pain) points (all p<0.05). Weight loss trended toward improved (p=0.053).

Conclusions: 8 of 15 symptoms significantly improved after the first visit to a small-scale SOC. These reductions may underestimate the SOC’s effect if disease was progressing or overestimate differences if disease was shrinking, but such data were unavailable.

Implications for Research, Policy, or Practice: Larger multi-site trials with well-defined interventions and control groups are needed.

Practical Matters and Ultimate Concerns, “Doing” and “Being”: A Diary Study of the Chaplain’s Role in the Care of the Seriously Ill in an Urban Acute Care Hospital (S710)

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Objectives

• Identify the actions and activities of chaplains.
• Identify activities that are associated with the highest chaplain satisfaction.

Original Research Background: Although chaplains have been recognized members of hospital staff since early in the 20th century, systematic observational studies of their role and function as a member of the healthcare team are few.

Research Objectives: To identify key actions and activities of chaplains during encounters with seriously ill patients.

Methods: We used an episode-based diary method recorded on handheld digital tablets so that chaplains at a large urban hospital with a diverse patient population could record details of visits in near-real time. The instrument is grounded in chaplaincy education tools and was designed and piloted with chaplain input. Chaplain participants recorded content (participants, conversation topics, activities), time spent, and their satisfaction with each patient and/or family encounter.

Results: Over a 10-month period, data were collected on 1,140 visits made by nine chaplains. Visit length averaged more than 20 minutes, there were an average of 3.8 participants per visit, and chaplains reported high levels of satisfaction with their work. Cluster analysis revealed groups of activities we called “doing” and “being,” and conversation topics of “practical matters” and “ultimate concerns.” Chaplains were the most satisfied with “being” visits and visits with family conversations about “ultimate concerns.”

Conclusions: Chaplains’ encounters offer patients and families the opportunity for conversation about significant concerns during a crisis of serious illness. Insight into where chaplains feel most comfortable with patients and families presents an opportunity to explore how chaplains are trained.

Implications for Research, Policy, or Practice: Further research on chaplain activities can delineate the role of chaplains on the healthcare team, enhance training of chaplains, and facilitate insight by the interdisciplinary team on how chaplains work and experience patient interactions.

Chaplains’ Role in End-of-Life Decision-Making: Perspectives of African American Patients and Their Family Members (S711)

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Objectives

• Describe the impetus that led to the investigation and the methods of the overall project.
• Describe the key components and language of the three core categories regarding spiritual health at EOL.
• Identify strategies to educate palliative care teams and professional chaplains as to the importance of EOL assessments that are constructed based on the direct experience of patients and their families.

Original Research Background: Hospital chaplains are integral to interdisciplinary palliative care teams, yet little is known regarding
the role they play in end-of-life (EOL) decision-making and care of seriously ill patients and their family members.

**Research Objectives:** Fill important knowledge gaps by investigating and documenting the impact that hospital chaplains have on EOL decision-making and care of seriously ill patients and their family members, with a focus on the experiences of African Americans.

**Methods:** The site of this study was a 511-bed community-based full-service hospital where 70% of all patients that receive a palliative care consultation are African American. We conducted 24 in-depth interviews of approximately 60-90 minutes with 12 patients, 8 family members, and 2 patient-family dyads. Data collection methods included in-depth interviews and ethnographic observations. Using a subset of data from 14 African American participants (6 patients and 8 family members), we performed a thematic analysis using constant comparative methods consistent with a grounded theory approach.

**Results:** Findings showed that although chaplains rarely initiated EOL discussions, they nevertheless played a crucial role when seriously ill, predominately lower income African American patients and their families considered EOL decisions. We identified three categories of EOL decision-making among participants that reflect varied levels of chaplain involvement: 1) chaplain-supported decision-making; 2) chaplain-centered decision-making; and 3) religion-centered decision-making. We report these findings in the form of three illustrative case studies.

**Conclusions:** Chaplains’ primary role in EOL decision-making was to relieve spiritual distress, ease guilt, and provide comfort. One participant described this support as “something that only the chaplain could offer.”

**Implications for Research, Policy, or Practice:** Delineating core categories of patient and family concerns regarding spiritual health at EOL will help chaplains to respond to persons with interventions that correspond with the assessed level of the chaplain’s role.

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**Identifying Opportunities to Improve Pain among Patients with Serious Illness (S712)**

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**Objectives**

- Identify patient characteristics associated with moderate or severe pain at the time of initial pain assessment by an inpatient palliative care consult team.
- Describe which patients’ characteristics are associated with an improvement in pain within 24 hours of an initial palliative care pain assessment.
- Consider how this information can be used to guide pain improvement efforts for your palliative care consult team.

**Background:** Pain is associated with lower quality of life and satisfaction, as well as longer length of stay. Effective pain control is a core competency for palliative care (PC) teams.

**Objective:** Identify patient characteristics and outcomes associated with pain and improvement in pain.

**Methods:** Eight PC teams in the Palliative Care Quality Network (PCQN) entered data into the PCQN database from Jan 2013 to May 2014. The 23-item dataset includes demographics, care processes, and outcomes. We examined which patient and care characteristics are associated with pain at the time of initial PC assessment, as well improvement in pain by the time of second assessment within 24 hours.

**Results:** Of 3,157 patients, 1,292 could rate their pain. Overall, 399 (31%) had moderate/severe pain at first PC assessment. Patients with pain were younger (60 vs 73 years, p=0.0001) and had a higher palliative performance scale score (44 vs 40, p=0.0001). A higher percentage of patients with cancer reported pain (49%, p=0.0001) than with pulmonary (20%), cardiovascular (17%), and neurologic (11%) disease. Patients in medical/surgical units were more likely to have pain than patients in intensive care and step-down units (47% vs 34% vs 30%, p=0.001). Pain was associated with anxiety (p=0.0001) and nausea (p=0.0001), but not dyspnea (p=0.7).

Sixty-five percent (162/250) of patients with moderate/severe pain reported an improvement in pain by second assessment. Patients with severe pain were more likely to improve than those with moderate pain (72% vs 58%, p=0.01). Improvement in pain was associated with improvement in anxiety (p=0.0001), but not nausea (p=0.7) or dyspnea (p=0.3).

**Conclusions:** Younger, more functional patients with cancer and anxiety were most likely to report pain. Patients with severe pain were more likely to improve. Improvement in pain was associated with improvement in anxiety.

**Implications for Research, Policy, or Practice:** Standardized data collection across sites can identify patients most likely to have marked and refractory pain, to guide pain control efforts, and track performance.
Characterizing Parent-Clinician Discussions about Critically Ill Infants: Empirical Observation of Real-Time Conversations (S713)

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Objectives
- Describe interdisciplinary team communication behaviors in a NICU family meeting.
- Describe family communication behaviors in NICU family meetings.

Original Research Background: Clinicians in the neonatal intensive care unit (NICU) must engage in clear and compassionate communication with families. Developing best practices for counseling, and for training clinicians in key communication skills, are hampered without empirical, observational data about how these conversations unfold.

Research Objectives: To observe and analyze how interdisciplinary NICU clinicians and parents navigate difficult conversations.

Methods: We prospectively identified and audiotaped NICU family conferences about "difficult news." Conversations were analyzed using the Roter Interaction Analysis System (RIAS), a quantitative tool for assessing content and quality of patient-provider communication. Each expressed thought is assigned to 37 mutually exclusive categories which are combined into 10 composite codes for analysis.

Results: We analyzed 19 conversations with 31 family members and 23 clinicians. For 11/19, the primary clinician was just meeting the family, although 5/11 infants had been NICU patients for >1 month. Although 18/19 conversations included multiple clinicians, 91% of team dialogue was delivered by one or two clinicians. Clinicians contributed 65% of total dialogue; 56% of that dialogue focused on biomedical information. Parents rarely (5% of dialogue) asked questions about that information; clinicians asked even fewer (3.5% of dialogue) questions of the family. Conversations were longer with the presence of non-physician clinicians, but this did not increase dialogue about psychosocial information or increase parent engagement.

Conclusions: To the best of our knowledge, this is the first study that directly observes parent-clinician discussions regarding high risk newborns. Even when interdisciplinary clinicians were present, discussion was heavily focused on biomedical information. Clinicians always talked more than parents, and no one asked many questions. Given this, it is difficult to assess shared understanding about an infant’s condition.

Implications for Research, Policy, or Practice: Maximizing the value of interdisciplinary clinicians in NICU family meetings may require explicit strategies to integrate the perspectives and resources of individual team members. Methods to increase family engagement should be targeted.

Expressions of Teenagers Under Palliative Care on Facebook: a Fresh Approach for Healthcare Professionals (S714)

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Objectives
- Describe which ways adolescents requiring palliative care express themselves using the social network Facebook.
- Identify potentialities to improve adolescents’ palliative care by healthcare providers.

Original Research Background: Children with long-term chronic illnesses need broad types of support that can be offered in creative ways by the palliative care team. An increasing number of health related communities on the Internet show that people who use virtual socialization are also looking for support.

Research Objectives: The aim of this qualitative study was to explore the use of the social network Facebook by an adolescent with a genetic disease requiring palliative care.

Methods: This qualitative study used a single-participant case-study approach. After consent was obtained all of the postings and Internet interactions of the teenager were observed and collected over a 222 day period. A virtual ethnography approach to data analysis was used. All postings were carefully reviewed and analyzed using the content analysis method. The female teenager is the carrier of a rare genetic disorder, osteogenesis imperfecta. The teen shared all 54 postings with the research team. The postings included messages and photos.

Results: It was possible to identify themes that include: feelings and emotions, coping with stigma and prejudice and religious
beliefs. These themes captured the manifestation of feelings usually retracted and the interaction of social issues, which are hardly treated openly, and are essential in a palliative approach, especially with school-age children and adolescents.

Conclusions: Virtual social networks have an important role for expressing and communicating stories, thoughts, and feelings. This teenager shared her suffering, coping abilities, beliefs, and daily tasks with friends.

Implications for Research, Policy, or Practice: Considering that palliative care can enhance quality of life, and may also positively influence the course of illness, by providing relief from pain and other distressing symptoms, virtual social networks can be an important tool for health professional to get closer to children, adolescents, and families.

Integrated Palliative Care Case Review in a Medical ICU, Processes and Outcomes (S715)
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Objectives
• Impact of family meeting in the ICU.
• Quality improvement clinical trial design.

Introduction: High-quality critical care should incorporate aspects of palliative care (PC), including early family meetings to achieve preference-sensitive decision-making. We report the association between the occurrence of a family meeting and family satisfaction in the pre-intervention cohort of an ongoing pre/post study of a PC intervention in the ICU.

Methods: ICU patients with >1 of the following were included: Metastatic malignancy, hospitalization >9 days prior to the ICU admission, ICU LOS >13d, ventilation >6d, age >79 with >1 comorbidity, cardiac arrest, cerebral hemorrhage requiring ventilation, or admission from an LTAC. Patients listed for transplant were excluded. Outcomes were family member surveys and abstracted chart data.

Results: 99 subjects were included in the preintervention cohort, mean age 60.4y (SD 16.5), median ICU LOS 5d (IQR 2-12), and median LOS 13d (IQR 6-27); 35% died in hospital. Common inclusion criteria included: longer mechanical ventilation (23%); age >79 (21%); cardiac arrest (21%). 60% (n=59) of family member surveys were returned. A higher level of satisfaction with ICU care (mean 84.4 (1-100), SD 12.8) than with ICU decision-making (mean 82.6, SD 16.3) was seen. For those who died in the ICU, respondents rated the quality of their loved ones death highly (mean 8.8 (1-10), SD 1.2). Family meetings occurred for 39% of all subjects though only in 20% of ICU survivors. In a multivariate regression adjusting for age, sex, race, ICU LOS, and mortality, documentation of a family meeting was associated with higher family satisfaction with decision-making in the ICU ($ß =13.7, 95% confidence interval 1.5-30, p=0.029$)

Conclusions: 1. Families rate the quality of their loved ones’ care in the ICU higher than the quality of decision-making. 2. A family meeting is strongly associated with satisfaction with decision-making. 3. Family meetings are uncommon. 4. Interventions that increase the occurrence and documentation of ICU family meetings and their effects should be studied.

What's Love Got to Do With It? Patient and Informal Caregiver Dyads' Self-care in Heart Failure (S716)
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Objectives
• Summarize the unique contributions of informal caregivers and the dyadic relationship to heart failure patient’s self-care.
• Assess the impact of the informal caregiver in their clinical practice.

Original Research Background: Little is known about the effect of the patient/informal caregiver dyad in heart failure (HF) self-care. Many characteristics differentiate dyads and contribute to self-care, but this study examined actor (patient) and partner (caregiver) effects of characteristics amenable to intervention.

Research Objectives: Describe the dyadic characteristics of mood and perception of the relationship in HF patients and caregivers, then explore the relationship of the characteristics with self-care.

Methods: In this prospective, cross sectional study of hospitalized HF patients, we analyzed mixed dyads (spousal/adult child/relative) using Actor-Partner Interdependence Model (APIM) techniques. Mood was measured by the Brief Symptom Inventory and Patient Health Questionnaire; perception of the relationship by the Dyadic Adjustment Scale; and self-care by the Self-care in Heart Failure Index. Univariate analysis and structural equation models were conducted.
Results: In 40 dyads, the average patient was a 71 year old male (n=30) and spousal (n=28). The caregiver was 59 years old and female (n=26). Overall self-care scores were consistently low across dyads. Patient depression scores were significantly greater than caregivers (p=.0055); anxiety and dyadic adjustment scores were comparable. Greater caregiver anxiety predicted lower caregiver maintenance scores (p<.0001) but greater caregiver depression predicted lower patient maintenance scores (p<.0001). While patient and caregiver’s perception of the relationship was associated with their self-care, more importantly, caregiver’s perception of the relationship predicted their confidence in their ability to engage in the patient’s self-care (p=.003).

Conclusions: This study shows that the caregiver, often unacknowledged or unmeasured, impacts the patient’s day to day HF care.

Implications for Research, Policy, or Practice: While there is beginning empiric and theoretical support for the importance of the informal caregiver in HF, there are significant gaps in what is known about the impact of the dyadic relationship itself. These preliminary findings should be further explored in a larger, more diverse sample.

Palliative Social Work Services for Hepatocellular Cancer Patients at a VA Medical Center (S717)

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Objectives
- Describe patient characteristics that are associated with greater social work involvement.
- List common palliative care social work interventions and their effect on site of death.

Original Research Background: Little is known about provision of palliative social work (SW) services to patients with hepatocellular cancer (HCC).

Research Objectives: Describe social work characteristics of HCC and examine for hypothesized relationships between these characteristics, SW interventions, and outcomes.

Methods: Charts of patients with hepatocellular carcinoma who were seen by the Palliative Care Consult Service from 2008 to 2012 at the James J Peters VAMC were reviewed. The number of social work interventions was dichotomized at 4 interventions, and site of death was categorized as hospice or acute care. Associations were determined with Fisher’s exact test on 2x2 tables.

Results: There were 40 pts, median age 64 yrs (range 55-88). Eighteen pts (38%) had no caregiver. Decision maker was the patient for 27 pts (69%). 18 pts (46%) were uninsured and income source was unknown for 25 pts (64%). At referral, advance directives (AD) had been completed by 14 pts (36%) and 32 pts (82%) were aware of their diagnosis.

Patients were seen by a regular SW for 35 pts (90%) and by the palliative care SW in 26 pts (67%). Twelve pts (31%) had a family meeting. Number of SW interventions were associated with patient awareness of diagnosis (p=.052), having completed an AD (p=.035), palliative care social work involvement (p=.002), and emergency room admission (p=.07). Site of death was associated with family meeting (p=.06), patient awareness of diagnosis (p=.085), and having an AD at time of consultation (p=.011) but not with decision maker, caregiver, or insurance status.

Conclusions: Patient completion of advance directives and ER admission are associated with SW workload, and family meetings are associated with site of death

Implications for Research, Policy, or Practice: Findings suggest clinical features that affect SW workload and the importance of SW interventions.

The Activities of Chaplains in the Intensive Care Unit (S718)

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Objectives
- Recognize the limited scope to which chaplains are involved in patient care in the ICUs at a tertiary academic medical center.
- Recognize the limited communication between chaplains and the primary ICU team at a tertiary academic medical center.

Objective: Patients and families commonly experience significant spiritual stress during an intensive care unit (ICU) admission. While a majority of patients report that they want spiritual support, little is known about how these issues are addressed by hospital chaplains. Our goal was to describe the epidemiology, timing, and type of hospital chaplain consultation in adult ICUs, as
well as the patient population they serve.

**Design:** Retrospective cross-sectional study.

**Setting:** Adult intensive care units at a tertiary care academic medical center.

**Measures:** Days from ICU admission to first chaplain consult, days from first chaplain consult to ICU death or discharge, hospital and ICU length of stay, severity of illness at ICU admission, and first chaplain consult. We also assessed how often documentation of chaplain communication with the ICU team was noted in the chart.

**Results:** Of a total of 4,169 ICU admissions from a 6-month period, 248 (5.9%) patients (179 [10.1%] mechanically ventilated patients) received a chaplain consult. Of the 246 patients who died in an ICU, 199 (81%) were seen by a chaplain. There was a median of 2 days from ICU admission to first chaplain consult and a median of 1 day from the time from first chaplain consult to ICU discharge or death. Chaplains communicated with nurses after 141 encounters (56.9%), but with physicians after only 14 encounters (5.6%); there was no documented communication in 55 encounters (22%).

**Conclusions:** In this single center study, chaplain consults are uncommon and generally occur just before death among ICU patients. Communication between chaplains and physicians is rare. Chaplaincy service is primarily reserved for dying patients and their family members. That hospital chaplains appear to be providing care predominantly to patients just before death rather than providing proactive spiritual support highlights the need to better understand challenges and barriers to optimal chaplain involvement in ICU patient care.

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**Total Medicare Payments Related to Hospice and Non-Hospice Services for Beneficiaries Enrolled in the Hospice Benefit (S719)**

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**Objectives**

- Describe the scope of Medicare utilization by hospice beneficiaries during hospice election.
- Describe geographic variation and basic trends associated with high rates of non-hospice utilization during Medicare hospice election.

**Original Research Background:** The Medicare Hospice Benefit covers end-of-life care and symptom management for beneficiaries’ terminal illness and related conditions. Beneficiaries may still receive services through other Parts of the Medicare Program for illnesses which are unrelated to the terminal illness or related conditions.

**Research Objectives:** Examine expenditures related to all Medicare expenditures that occur during hospice elections in calendar year 2012.

**Methods:** We combined 100% Medicare hospice, Part A, Part B, and Part D claims and present summary statistics on expenditures that overlap with a hospice election.

**Results:** Our analysis found that the Medicare hospice benefit paid for 91,322,751 service days in 2012 with total payments equal to $15,046,808,584 ($15.0 billion). Additionally, we found that Medicare paid $710,087,321 ($710.1 million) for non-hospice services beneficiaries utilized during hospice enrollment in the following categories: inpatient care services ($202,981,798; or 28.6% of total), skilled nursing facility services ($40,333,844; 5.7%), home healthcare ($32,140,138; 4.5%), durable medical equipment ($49,529,040; 7.0%), and other Part B services ($385,102,500; 54.2%). Rates per day of Medicare payments for non-hospice Parts A and B services were greatest among states in the South ($10.67 per service day in the South vs $7.42 Northeast; $6.70 Midwest; $4.04 West). Hospice beneficiaries themselves paid an additional $135,454,501 million ($135.4 million) in coinsurance for these non-hospice Parts A and B services. In total, Medicare services utilized by hospice beneficiaries totaled $15.0 billion (for hospice services) along with an additional $1.3 billion (for non-hospice services) for a grand total of $16.3 billion in 2012.

**Conclusions:** Medicare hospice benefit expenditures have quintupled since 2000, and this analysis demonstrates beneficiaries utilize a substantial amount of non-hospice services during hospice election.

**Implications for Research, Policy, or Practice:** We recommend further research to inform potential monitoring activities to ensure that covered hospice services are appropriately billed to non-hospice parts of Medicare.

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**Pilot of a teleGeriatrics Interprofessional Curriculum in Long-Term Care (S720)**

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**Objectives**
- Be aware of and able to discuss the barriers that exist to providing optimal geriatric palliative care within rural long-term care settings.
- Appreciate a new modality of education within the long-term care environment and begin to formulate how this may be incorporated into practice back at their home institution.

**Background:** In long-term care (LTC) facilities, there is variability in access to geriatrics and palliative medicine health professionals, especially in rural environments. Specific areas of need include: (1) Geriatrics and palliative medicine content, especially dementia and delirium, and (2) Interprofessional team training. Innovative, efficient teaching models are needed to develop competence in these areas for healthcare professionals.

**Research Objectives:**
- To pilot a video-teleconference “teleGeriatrics” curriculum for LTC teams within a rural VAMC.
- To compare learners’ response to video-teleconference (Vtel) versus in-person (IP) geriatrics and palliative medicine interprofessional team training.
- Assess interprofessional team training impact on 1) attitudes toward teams, 2) self-perceived teamwork skills, 3) knowledge of and comfort with dementia and delirium.

**Methods:**
- Convenience sample of VA staff (n=39) were recruited from long-term care (LTC) including hospice and palliative care, skilled nursing care, dementia care, and post-acute rehabilitation.
- Interprofessional curriculum comprising team training, geriatrics, and palliative medicine content.
- Quasi-experimental design: Teams randomized to either IP or Vtel then crossed over.
- Learner and course evaluations were conducted.
- Statistical Analysis: Paired t-tests, signed rank tests, and McNemar’s test were used in data analysis. Comparisons were made both within and between groups.

**Results:**
- Positive attitudes increased by 15.9% (p<0.0001). Positive perception of team efficiency increased by 15.9% (P<0.0001) and that of team value increased by 15.1% (p<0.0001).
- Participants confidence levels in their own team-based care skills increased by 16.7% (p<0.0001).
- Geriatrics and palliative medicine knowledge on the post-test improved across all areas tested (p<0.05).
- Most participants reported in the end of course evaluation that teleGeriatrics was as effective as in-person training (78%), although they showed a slight preference for in-person training (41%).

**Conclusions and Future Implications:** This pilot teleGeriatrics teaching intervention was feasible and well received by participants. This may provide a means of reaching long term care teams with poor access to geriatrics and palliative medicine expertise. Further research is needed to explore efficacy within a larger healthcare system.

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**A Systematic Review and Meta-Analysis of Meditative Interventions for Caregivers (S721)**

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**Objectives**
- What aspects of caregiver health and well-being are commonly reported as affected by patient care? Develop an understanding of the aspects of caregiver health affected by patient care.
- What is the evidence for meditative interventions as an intervention to improve caregiver well-being? Develop an understanding of the evidence for mindfulness interventions for caregivers.

**Systemic Review Background:** Informal caregivers and healthcare professionals providing direct patient care often report similar challenges in maintaining health; both populations report increased levels of stress and anxiety. Caregiver burnout, particularly in the palliative setting, has previously been identified as an area of heightened concern. Meditative interventions are gaining acceptance as a tool to improve well-being in a variety of clinical settings, however little is known about their effectiveness as an intervention for caregivers.
Aims: The objective of this review is to examine the effect of meditative interventions on measures of well-being for informal caregivers and healthcare professionals in the palliative setting as well as other caregiving environments. Among the outcomes examined are depression, stress, burnout, self-efficacy, job satisfaction, and sense of caregiving burden.

Methods/Session Descriptions: Of 1,561 articles retrieved from PubMed, EMBASE, PsycINFO and CINAHL, 68 articles met our inclusion criteria of a randomized clinical trial (RCT) or pre-post design, >5 participants, an isolatable meditative practice intervention and participants involved in direct patient care. After reviewing these articles in full text, 27 were eligible for inclusion in the systematic review, with 26 included in the meta-analysis.

Conclusion: Our review suggests there is evidence of improvement of mood and stress in both informal caregivers and healthcare professionals who undergo a meditative intervention. There is mixed evidence for improvement in perception of burden, burnout, and job satisfaction. It was unclear from the studies available whether changes in caregiver measures of well-being correlated with changes in the quality of patient care. There was a paucity of data around the effectiveness of these interventions in the palliative setting, suggesting an area where further research is needed.

A Screening-And-Early-Intervention Palliative Care Model for Cystic Fibrosis Patients: Development and Initial Implementation (S722)
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Objectives
• Describe the methods used to develop and implement a novel service delivery model for concurrent palliative and primary cystic fibrosis care in a hospital-based setting.
• Discuss research findings evaluating this model from a cohort of cystic fibrosis patients and the effects on symptom distress and overall quality of life, advance-care planning and goal-setting, and caregiver distress.

Original Research Background: Cystic fibrosis (CF) is best managed by the integration of a palliative plan of care with routine care throughout the disease trajectory, but no models of concurrent palliative and primary CF care exist.

Research Objectives: In this ongoing study, we are: 1) Evaluating the feasibility of a novel service delivery model for CF patients that addresses needs for palliative interventions throughout their disease using: a) repeated Web-based screening; b) triage for early interventions; c) quality improvement programming; and d) appropriate early referral to a specialist palliative care team 2): Conducting a prospective cohort trial to evaluate this model as a means to improve symptom distress and quality of life (QOL), enhance advance care planning, and reduce caregiver distress.

Methods: The model elements include: 1) monthly Web-based screening, 2) triage of patients who request a rapid response to address a source of distress, and 3) enhanced availability of palliative care throughout their disease. CF patients also provide baseline and quarterly outcome data. Eligible adults with life expectancy >6 months complete the Memorial Symptom Assessment Scale-CF, PROMIS Anxiety-Short Form (PASF), PROMIS Depression-Short Form (PDSF), and CF Questionnaire-Revised (CFQ-R).

Results: Initial baseline data (n=61; M age=38.4 years; SD=13.0; 52.5% women; 91.8% White) show that the most prevalent symptoms are cough (80.3%); fatigue (63.9%); difficulty sleeping (59.0%); sinus discharge (52.5%); and dyspnea (50.8%). Symptoms rated as “quite a bit” or “very” distressing include feeling irritable (61.5%); fatigue (48.7%); and cough (42.9%). PASF scores (T=52.1; range=37.1-80.1) and PDSF scores (T=52.1; range=38.2-78.2) suggest that 21.3% and 9.8% of patients report higher anxiety and depressive symptoms respectively, than the general adult population. On the CFQ-R, treatment burden (M=53.5; SD=25.3); vitality (M=54.8; SD=20.4); and health perceptions (M=57.6; SD=24.2) represent the poorest QOL domains.

Conclusions: Initial data suggest high symptom burden in this sample.

Implications for Research, Policy, or Practice: Our screening-and-early-intervention model has the potential to improve symptom distress for the CF population.

Development of Module to Examine Training of the Hospice Primary Caregiver (S723)
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Objectives

- List at least 2 important areas in which hospice should train a primary caregiver to care for a patient.
- List at least 2 ways in which the training questions included in the FEHC 2.0 home module are strong measures of patient safety and caregiver support in the home setting.

Original Research Background: The majority of hands-on care is provided by the hospice primary caregiver. Key to quality of care of dying hospice patients is whether the hospice provides adequate instructions and training in key processes of care for the primary caregiver.

Research Objectives: Develop and validate a survey module to characterize hospice support for the hospice primary care giver.

Methods: Confirmatory factor analysis, examination of internal consistency, and construct validity was examined based on surveys administered during a window of three to six months after the patients’ death.

Results: Our sample consisted of 262 relatives and friends of individuals who died at home under the care of hospice. Patients and respondents were mostly female, white, and college-educated. The most common diagnosis was cancer and respondents were most often the spouse or child of the decedent, and very much involved in their care. A total of 12 survey items were tested. Review of frequency and variation of responses from caregivers among 6 participating hospice sites suggested their potential to undergo factor analysis. Factor analysis suggested a strong, one-factor solution that focused on receiving adequate training to care for the dying patient at home. Information composite items were dropped after factor analysis due to low model fit and Cronbach’s alpha. Internal consistency was 0.90. For construct validity, we examined the correlations between the factor and global ratings such as overall rating of quality of care (0.53) overall distress (0.31) and whether the respondent would recommend this hospice to others (0.49). Our model indicated no significant socio-demographic predictors of reporting more problems with care.

Conclusions: The proposed multi-item training composite has sufficient reliability and validity to undergo further testing in a larger sample of hospice programs.

Characteristics and Outcomes of Persons with Advanced Cancer Associated with Having a Family Caregiver: A Classification Tree Analysis (S724)

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Objectives

- Have an enhanced understanding of those persons with advanced cancer who have and don’t have a family caregiver.
- Be able to state potential benefit of having an advanced cancer family caregiver.

Original Research Background: Little is known about the impact that having a family caregiver (FCG) present has on individuals with advanced cancer.

Research Objectives: To examine variables associated with having versus not having a primary FCG.

Methods: Secondary analysis of a randomized controlled trial of a palliative care intervention (Project ENABLE) for patients with advanced cancer and their primary FCGs. Structured tree analysis was used to identify variables associated with the presence or lack of a FCG. Sociodemographic and patient reported outcomes data were abstracted from baseline questionnaires of 122 patients who enrolled with a FCG and 85 patients who enrolled without a FCG. Sociodemographics included age, gender, education, race, social support (MSPSS: Multidimensional Scale of Perceived Social Support), and Karnofsky Functional status. Patient reported outcomes included symptom impact (QUAL-E Symptom Impact, score range: 4-20), quality of life (QOL) (Functional Assessment of Chronic Illness Therapy-Palliative Care), depression (Center for Epidemiological Studies-Depression Scale), perceived quality of care (Patient Assessment of Chronic Illness Care), and hospital days and emergency department visits in the past 3 months.

Results: For patients with MSPSS scores <52.5 (n=12), none had a FCG. For male patients with MSPSS scores >52.5 (n=105), 73% (n=77) had a FCG. For female patients with MSPSS scores >77.5 (n=29), 69% (n=20) had a FCG. For female patients with MSPSS scores <77.5 and QOL scores >126.1 (n=25), 20% (n=5) had a FCG. For female patients with MSPSS scores <77.5, QOL scores <126, and depression scores >26 (n=10), 20% (n=2) had a FCG. For female patients with MSPSS scores <77.5, QOL scores <126, and depression scores <26 (n=26), 77% (n=20) had a FCG.

Conclusions: Having a FCG is associated with high levels of perceived social support, being male, and lower depression despite lower QOL.
Implications for Research, Policy, or Practice: Advanced cancer patients with little social support require special arrangements to help them manage their illness.

The Undergraduate Hospice Experience: A Way to Teach Pre-Med Students the Importance of Compassionate Patient Care (S725)

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Objectives
• Identify the role that pre-medical education forums can have in influencing the future workforce in primary and specialty palliative and end-of-life care.
• Intimate the potential impact of hospice volunteerism on pre-medical school education.
• Describe the possibility of partnership between hospice and/or palliative care volunteer programs and pre-medical undergraduate college programs.

Original Research Background: The field of hospice and palliative medicine has emphasized the need to expand education to all U.S. UME and GME programs to enhance practitioner knowledge, skill, and confidence in caring for the seriously ill. To date, there have been no studies evaluating the potential impact of introducing core concepts of palliative care to pre-med students. Furthermore, many medical schools and graduate medical education programs value the acquisition of scientific and technical knowledge over the humanistic qualities of being a doctor.

To address this gap, we evaluated the impact of a 10 week, 30 hour hospice volunteer training program followed by bedside volunteering on pre-med students. We were particularly interested in exploring how this experience affected their knowledge of core concepts in hospice and palliative care, and their ability to stay with suffering and death.

Methods: In order to determine the effect of the hospice training and volunteer program on the way that pre-med students view death and dying, we conducted both individual and group interviews at the start of the training, the end of the training, and after participants had logged a semester’s worth of volunteer time. Interviews were transcribed and analyzed for trends.

Results: The pre-med students gained a deep and personal understanding of the importance of being fully present with their patients, and expressed great humility at the limits of their own knowledge. However, there was less consistency in their knowledge acquisition of core definitions and concepts in the field of hospice and palliative care.

Conclusions and Implications: The CHANS Hospice volunteer training taught participants the value of fully showing up for their patients, as well as the importance of humility in an ever-evolving field. As such, incorporating hospice volunteer programs into pre-medical curriculums around the country would help teach future doctors important lessons about quality patient care.

Glioblastoma Multiforme: The Case for Accelerated Palliative Care Consultation (S726)

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Objectives
• Understand the palliative care needs of ambulatory patients with Glioblastoma multiforme (GBM).
• Appreciate the opportunity for early palliative care intervention in ambulatory patients with Glioblastoma multiforme (GBM).

Aim: Glioblastoma Multiforme (GBM) is a relatively rapid and uniformly fatal illness. Standard treatment with radiation therapy and chemotherapy, following biopsy or resection, unquestionably, but modestly, improves survival. The presenting neurologic deficits and inexorable eventual decline herald a need for palliative care (PC) at some point in the course of this illness. In an attempt to quantitate the PC needs of such patients at baseline, we assessed the symptom burden and frequency of advanced care planning in GBM patients treated at an urban outpatient Cancer Center.

Methods: The Maimonides Cancer Center (MCC) Registry was queried to identify patients seen from 2008-2012 with a diagnosis of GBM. IRB approval was obtained to identify symptom burden and the presence or absence of a healthcare proxy (HCP) and advance directives (AD) following diagnosis, but before non-surgical treatment.

Results: We identified 67 patients, of whom 42 were treated at MCC (7 chose to be treated elsewhere, 11 either declined treatment or died before treatment could begin, 7 unknown). At the time of evaluation for chemoradiation, 21% of patients had a history of or active seizures, 43% had motor deficits and/or gait disturbances, and 50% had cognitive impairment and/or speech dysfunction. Approximately 1/3 had appointed a healthcare proxy and 1/10 had advance directives of any kind.
Conclusions: We describe the high burden of physical and neurologic symptoms in this primarily ambulatory patient population. Plans for end-of-life care, including provision for surrogate decision making, are not being addressed routinely in the majority of patients early in the course of disease. Given the reported benefits of early palliative care for other malignancies associated with short survivals, the impact of early PC should be evaluated in patients with GBM.

Emergency Medical Services Providers' Knowledge, Attitudes, and Experiences Responding to Patients with End-of-Life Emergencies (S727)
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Objectives
• Identify the gaps between palliative care needs of patients with end of life emergencies and current education for providers.
• Describe knowledge, attitudes, and experiences of EMS providers in responding to patients with end of life emergencies.

Original Research Background: Emergency medical services (EMS) providers are increasingly called to respond to terminally ill patients at end of life. Little is known regarding the EMS experience of this population.

Research Objectives: The objective of this investigation was to assess the knowledge, attitudes, and experiences of EMS providers in responding to patients with End-of-Life Emergencies (ELE).

Methods: Quantitative and qualitative survey data were collected on EMS providers' knowledge, attitudes, and experiences from responding to and transporting ELE patients. Chi-squared tests were used to compare EMS providers' responses by credential (Emergency Medical Technician Intermediate [EMT-I] versus Paramedic [EMT-P]) and years of experience (0-4 vs 5+). A thematic analysis was used to identify themes from examine open-ended responses.

Results: Of the 182 EMS providers in one EMS service who completed the survey (100% response rate), 84.1% had cared for an ELE patient one or more times. Respondents included EMT-I's (47.3%; n=86) and EMT-P's (52.7%; n=96). Respondent's years of experience ranged from 0 to 10+ years, with 54.3% (n=99) having 0-4 years of experience and 45.7% (n=83) having 5+ years of experience. No significant differences between EMT-I's and EMT-P's in their knowledge of the care of patients with ELE were found, nor were significant differences (p<0.05) found between those with 0-4 years of experience and those with 5+ years. 29.1% (n=53) of EMS providers reported receiving formal education on the care of patients with ELE. Thematic analysis of EMS providers' open-ended responses to questions identified perceived challenges in three key areas: 1) equipment-related problems; 2) difficulties interacting with patients with ELEs families; and 3) need for more education.

Conclusions: While the majority of EMS providers have responded to patients with ELEs, few have been formally trained on how to address known specific palliative care needs.

Implications for Research, Policy, or Practice: EMS providers would benefit from additional curricula on the ELE patient care.

Sharing the Journey: Technology-Enhanced Transitional Palliative Care for Rural Patients/Caregivers (S728)
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Objectives
• Describe technology-enhanced transitional palliative care.
• Discuss issues related to providing technology-enhanced palliative care in the rural setting.

Original Research Background: The majority of palliative care services are located in urban medical centers with few deliberate or consistent approaches to coordinate care across geographically-diverse settings. This pilot study linked two proven strategies, transitional care and use of health information technology, in an innovative way to extend palliative care across settings and improve outcomes for rural patients and their caregivers.

Research Objectives: The purpose was to determine feasibility, acceptability, and initial outcomes of a technology-enhanced transitional palliative care (TPC) intervention with rural palliative care patients/caregivers.

Methods: In this randomized controlled trial, patients/caregivers receiving inpatient palliative care consultation in a rural
Minnesota hospital received either TPC or usual care for 8 weeks after hospital discharge. TPC consisted of one home visit, periodic phone calls, and weekly video session visits with a nurse via iPad. Attention control patients received weekly telephone calls by a study team member. All participants were offered a subsequent qualitative telephone interview to assess feasibility and acceptability. Transcripts were analyzed using content analysis.

**Results:** Five patients and 7 caregivers were interviewed. Technology use was feasible and acceptable after minor initial glitches were resolved; all valued viewing their nurse during video sessions. Care coordination was a dominant theme. Intervention patients/caregivers experienced satisfactory care coordination, enjoyed continuity provided across settings, and valued anticipatory guidance received. Care coordination and relationship was absent for the control group; all needed to manage care and healthcare interactions alone.

**Conclusions:** TPC is not only feasible, but desired by rural palliative care patients/families transitioning from hospital to home or other care settings. Video technology was a welcomed adjunct to fostering and maintaining the provider/patient relationship.

**Implications for Research, Policy, or Practice:** Palliative care should continue beyond the hospital doors; ongoing follow-up is needed for often worsening healthcare issues for these patients. Policy needs to change to provide reimbursement for innovative palliative care strategies that span care settings.

**Interdisciplinary Team Care for Home Hospice Patients and their Families during the Last Week of Life (S729)**

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**Objectives**
- Demonstrate knowledge of hospice interdisciplinary team care patterns during the final week of a patient’s life.
- Distinguish different hospice interdisciplinary care patterns during the final week of a patient’s life based on patient characteristics.

**Background:** Hospice is designed to provide intensive, interdisciplinary care to patients near the end of life and their families. However, it is not known how patients nearing the end of life utilize members of the hospice team, nor is it known whether utilization of some disciplines increases more rapidly than that of others.

**Objective:** To describe the trajectory of hospice team member visits in the last week of life.

**Methods:** Retrospective cohort study of electronic medical record data from twelve not-for-profit U.S. hospices. Hospice team member visits were calculated as the number of in-person contacts recorded for each day of home hospice care. Linear regression models clustered by hospice were used to define the change in visit frequency per team member during the last week of life.

**Results:** Of 164,032 patients admitted to hospice over 5 years, 138,893 (84.7%) were in hospice for at least a week. For these patients, at 7 days prior to death, the average number of total home visits was 0.41 (SD=0.15). The frequency of home visits increased over the last 7 days of life (b=0.35; p<0.001). The most dramatic increase was for nurses (b=0.39; p<0.001), followed by social workers (b=0.30; p<0.001), hospice aides (b=0.29; p<0.001), and chaplains (b=0.24; p<0.001). A larger increase in visit frequency during the last week of life was seen in cancer patients (b=0.42; p<0.001) compared to other diagnoses (b=0.18; p<0.001).

**Conclusions:** Patients nearing the end of life and their families seem to draw increasingly on hospice resources. Predicting needs of hospice patients and their families, based on these findings, could guide use of interdisciplinary team care for patients and families during their final days.


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**Objectives**
- Identify longitudinal trends in advance directive development rates and populations with the greatest and lowest change in completion rates.
- List time points in the life span where patients document greater preference for aggressive care in their advance directives.
Evaluation of a Two-Step Video Legacy Program for Patients Facing Serious Illness (S731)

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Objectives
• Evaluate the pros and cons experienced by cancer patients participating in end of life video legacy work.
• Comprehend how to offer a similar two-step video legacy service to his/her patients.

Original Research Background: At the end of life, legacy work can be helpful for achieving completion and promoting dignity. However, most major published interventions require significant professional support and time. It is unknown whether more efficient legacy interventions are effective as well.

Research Objectives: The purpose of our study is to evaluate a two-step video legacy program for patients with cancer facing the end of life.

Methods: The SMS Notes Project helps people with serious illnesses record their thoughts, share their stories, and reflect on memories and relationships. The service is currently offered to patients through the UCSF Symptom Management Service. The methodology consists of an in-person brainstorming session and a project video-interview session. Video sessions are typically scheduled a week after brainstorming sessions to give patients time to discuss the project and available reflection questions with family or friends. Interviews can follow either the formal structure of the reflection questionnaire or can be modified according to the patient’s needs. Edited final projects are then sent to patients. Program evaluation was accomplished by soliciting and recording patient and family feedback about feasibility and impact.

Results: Since February 2014, 22 patients have been referred to the UCSF Notes program by their palliative care clinician and 8 patients (36%) have participated in a project. Participants have expressed a positive experience with this two-step legacy approach. Reported benefits of the Notes project include: the ability to engage family members in meaningful, reflective discussions; the importance of creating something concrete for their community; and the satisfaction of helping others by sharing stories and advice.

Conclusions: Evaluation of the UCSF Notes Project participants suggests that a two-step video legacy program can provide meaningful benefits to patients at the end of life

Implications for Research, Policy, or Practice: Next steps include a formal assessment of the outcomes of the intervention using validated tools to assess satisfaction, well-being, dignity, and life completion.

Embedded Outpatient Palliative Care Clinic for COPD & HF Patients: Structure, Process and Outcomes (S732)
Objectives

- Describe a model of care for an embedded outpatient palliative care program for COPD & HF patients.
- Articulate the measurable variable; structure, process, and outcomes, of the embedded outpatient palliative care clinic for COPD & HF patients.

Original Research Background: Clinic-based palliative care for patients with advanced chronic obstructive pulmonary disease and heart failure holds tremendous promise.

Research Objectives: Our team designed the model of care for an embedded Outpatient Palliative Care clinic (OPPC) within a pulmonary practice. We utilized the existing office staffing in the pulmonary practice to support the OPPC initiative. Patients were referred to the OPPC from the inpatient palliative care team, hospital case managers, pulmonary physicians, and transition of care appointments.

Methods: A retrospective chart review was completed and summarized. The primary data points collected were the reason for the referral, number of office visits, establishment of healthcare power of attorney/living wills, number of prescriptions, number of referral services. The outcome data points included readmissions, ED visits, and number of phone calls to the office.

Results: During the 112 scheduled office hours (over a 6 month period), board-certified Hospice & Palliative Care MD & NP completed 83 visits for 57 patients. The average age of the patients was 73 years old with twice as many male as female patients. The primary reason for referral was goals of care followed by symptom burden management. The impact of the embedded clinic on the pulmonary practice included a reduction of office visits by 53 and a reduction of triage phone calls by 92. Of the 57 patients enrolled in the OPPC, only 5 patients were readmitted to the hospital and 3 patients were seen in the Emergency Department. Twenty-three of the 57 patients enrolled into hospice services during the index appointment with OPPC.

Conclusions: The outpatient palliative care clinic is an excellent model of care for patients with chronic illnesses that experience heavy disease and symptom burden. The clinic is expanding to include other chronic illnesses, such as Parkinson’s and dementia patients.

Implications for Research, Policy, or Practice: Further research is necessary to determine provider, patient, and family perceptions.

An Accountable Care Organization (ACO) and an Academic Medical Center's Palliative Care Team Address Workforce Needs by Integrating Care Coordinators to Assist with Hospice Referrals in an Acute Care Setting (S733)

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Objectives

- Identify a common challenge of increasing volume of inpatient palliative care consultation in the setting of limited palliative care specialist workforce.
- Demonstrate collaborative workforce solutions between an academic medical center and its Accountable Care Organization.
- Report outcomes showing high rates of consult completion by care coordinators, high rates of hospice referrals, and low 30-day readmission rates for patients enrolled in hospice through this relationship.

Original Research Background: A well-established palliative care program at an academic medical center experienced a 34% increase in palliative care consults within 1 year without a concomitant increase in workforce (Y2011 = 1496 consults versus Y2012 = 2014 consults). The ACO’s Palliative Care working group developed a pilot program that integrated care coordinators (Registered Nurses with hospice experience) into the palliative care team to assist with hospice eligibility consults.

Research Objectives: Objective 1: Shift 25% of consults requesting hospice eligibility from the palliative care team to an ACO RN care coordinator. Objective 2: Refer 50% of hospice eligible patients to hospice when the patient is hospice eligible. Objective 3: Observe 30-day re-admission rates below the national standards for medical (16.1%) and surgical (12.7%) acute care discharges for the patients enrolled in hospice upon discharge.

Methods: Care coordinators were integrated into the palliative care consult workflow. The care coordinators acted as the first clinician to evaluate patients when a hospice eligibility consult was requested. Prospective data was collected and descriptive statistics were used to describe outcomes.

Results: Objective 1: 100% of consults for hospice eligibility were seen by care coordinators. Objective 2: 87% of hospice eligible...
cases were referred to hospice. Objective 3: A 30-day re-admission rate of 8.8% was observed.

Conclusions: Nationally there is a known shortage of palliative care specialist providers. This pilot program revealed that integrating care coordinators within the palliative care team with the support of an ACO can enhance referral, access, and the anticipated benefits of hospice for patients identified as hospice eligible in an acute care setting.

Implications for Research, Policy, or Practice: Developing collaborative relationships between acute care palliative care teams and ACO care coordinators may act as a tool to address known workforce shortages within the field of palliative care.

Results of a Palliative Care Needs Assessment in Middle Eastern Countries (S734)
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Objectives
- Describe the components of a palliative care needs assessment instrument.
- Determine barriers and facilitators to palliative care provision in the Middle East.
- Identify palliative care learning needs of ME healthcare professionals.

Original Research Background: Cancer is a global issue; its impact is devastating, but especially for poor, vulnerable, and socially disadvantaged people who are more often diagnosed with advanced disease and die sooner. Cancer incidence in Middle Eastern (ME) countries, most categorized as low- and middle-income, is predicted to double in the next 10 years, greater than in any other part of the world. While progress has been made in cancer diagnosis/treatment, much remains to be done to improve palliative care for the majority of ME cancer patients who present with advanced disease.

Research Objectives: To determine healthcare professional knowledge, beliefs, barriers, and resources regarding palliative care services in ME countries.

Methods: A palliative care needs assessment was used to query a convenience sample of 776 nurses (44.3%), physicians (38.3%), and psychosocial, academic, and other healthcare professionals (17.4%) employed in varied settings in 15 ME countries.

Results: Improved pain management services are key facilitators. Top barriers include lack of: designated palliative care beds/services, community awareness, staff training, access to hospice services, and personnel/time. The non-existence of functioning home-based and hospice services leaves families/providers unable to honor patient wishes. Respondents were least satisfied with discussions around advance directives and wish to learn more about palliative care focusing on communication techniques and breaking bad news. Populations requiring special consideration comprise: patients with ethnic diversity, language barriers, and low literacy; pediatric and young adults; and the elderly.

Conclusions: The majority of ME cancer patients are treated in outlying regions; the community is pivotal and must be incorporated into future plans for developing palliative care services. Promoting palliative care education and certification for physicians and nurses is crucial; home-based and hospice services must be developed and sustained.

Implications for Research, Policy, or Practice: Findings will be used to inform future educational and training activities in the ME.

Antibiotic Policies and Prescribing Practices in Oregon Hospice Programs (S736)
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Objectives
- Describe the frequency and content of policies for antibiotic use in Oregon hospice programs.
- Describe antibiotic prescribing practices and the frequency of antibiotic-associated adverse events in Oregon hospice programs.

Original Research Background: Antibiotic use is prevalent in hospice care despite limited data on safety and efficacy in this care setting.

Research Objectives: We surveyed Oregon hospice programs regarding antibiotic policies, prescribing practices, and frequency of antibiotic-associated adverse events.

Methods: We emailed the survey to Oregon Hospice Association member hospices that were geographically located in Oregon. The survey was self-administered and to be completed by the hospice administrator or person most knowledgeable about antibiotic use. Survey questions requested either estimated numerical frequencies or frequencies based on a Likert scale of the following options: “Never,” “Rarely,” “Sometimes,” “Often,” and “Always.”

Results: Among 50 eligible hospice programs, 39 (78%) completed the survey. The median reported prevalence of antibiotic use was 10% (interquartile range (IQR) = 3.5%-20.0%) of the current census and a median of 12.5% (IQR = 0-20.0%) of patients
were receiving antibiotics on hospice admission. Approximately 31% of hospice programs had policies for antibiotic initiation, 17% had policies for antibiotic discontinuation and 95% had policies for managing drug interactions. Approximately 84% of hospice programs reported “often” or “always” using antibiotics to treat symptoms and 42% reported “often” or “always” using antibiotics to cure infections. Approximately 44% of hospice programs reported “sometimes” or “often” not using antibiotics because the risks outweighed the benefits. Diarrhea, nausea/vomiting, and yeast infections were the mostly frequently reported antibiotic-associated adverse events occurring “sometimes” or “often” in 62%, 47%, and 62% of antibiotic prescribing instances, respectively.

Conclusions: These data suggest that antibiotic use is prevalent in Oregon hospice programs, often to treat symptoms and cure infections. Antibiotic-associated adverse events also appear common and antibiotics are frequently not used because potential risks outweigh benefits.

Implications for Research, Policy, or Practice: These data provide evidence regarding the potential burdens of antibiotic use in hospice care, which should be incorporated into antibiotic decision making in this care setting.

Exploring the Stigma of Having Pain and Its Effects on Community-Dwelling Elders (S737)

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Objectives
- Discuss attitudes and beliefs related to the presence and treatment of pain among a diverse population of community-dwelling elders.
- Explore relationship between pain treatment perceptions and socioeconomic status in a cadre of community-dwelling elders.

Original Research Background: Chronic pain is a common complaint among elders with chronic conditions, often unrecognized and undertreated. Should uncontrolled pain require opioid use, clinician’s attitudes, family concerns, potential side effects, and lack of patient’s education may play a role against pain control. Studies have yet to explore elders’ self-perceptions about pain, developing potential interventions to enhance patient education.

Research Objectives: To explore diverse community-dwelling elders’ beliefs and perceptions regarding the presence of pain and its treatment implications.

Methods: Five community centers in San Antonio, Texas were utilized. These centers encompassed diverse socio-economic characteristics. Elders were predominantly Hispanic. Elderly individuals were given a 15 minute presentation to educate on chronic pain. Anonymous surveys were utilized afterwards to evaluate knowledge and attitudes. The surveys addressed individual pain, opioid use, attitudes towards pain management, and financial and social barriers to chronic pain management.

Results: n=106; 73% female, mean age=75 (50-95). 64% subjects admitted having pain. 80% subjects were taking pain medications and 79% of those with pain and taking medications believed their pain was well controlled and trusted their prescribing clinician (p=0.0034). However, 43% felt “uneasy” about taking opioids and 50% reported opioid-related family concerns/judgments. When comparing senior centers, it was found that subjects with higher socioeconomic status were more likely to recognize they suffer from pain (p=0.02) but were treated appropriately (p=0.03); and lower socioeconomic status felt more criticized by clinicians for taking pain medications (p=0.038).

Conclusions: Community-dwelling elders often experience pain and take pain medications as prescribed by clinicians in spite of self/family concerns. However, socioeconomic status might influence their perceptions about recognizing they have pain and their need for treatment, as well as their perceptions related to clinicians’ judgment.

Implications for Research, Policy, or Practice: Further culturally-sensitive case-based interventions tailored towards community-dwelling elders, family members, and clinicians are urgently needed. Such interventions might improve awareness of untreated pain, decreasing negative stigmas towards symptoms relief.

A Descriptive Analysis of Hospice Use for Older Patients with Heart Failure (S738)

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Objectives
• Understand the importance of hospice for patients with heart failure and their families.
• Identify the differences in patients with advanced heart failure who enroll in hospice and those who do not.
• Brainstorm specific solutions to increase hospice enrollment for patients with advanced heart failure.

Original Research Background: Heart failure (HF) patients have high symptom burden, re-hospitalization rates, mortality rates, and Medicare costs. Although hospice use is increasing for individuals with serious illness, a minority of HF patients receive hospice and little is known about their referral to hospice.

Research Objectives: To examine the symptom burden, functional status, and healthcare utilization associated with hospice use and the timing of hospice referral in a sample of Medicare beneficiaries with advanced HF.

Methods: Using linked Medicare claims from 2009 and 2010, we sampled Medicare beneficiaries with at least one home health claim, two HF hospitalizations in a six-month period, and an OASIS health assessment by a home care clinician within 7 days of the second HF discharge (the index discharge). We conducted bivariate analyses to compare hospice and non-hospice enrollees.

Results: A total of 22,893 persons were included in the sample. Following the index discharge, 16,145 beneficiaries (70.5%) were re-hospitalized in the study period, a mean of 2.12 re-hospitalizations for hospice enrollees, and 2.23 for non-hospice enrollees. Of the sample, 3,921 (13.3%) enrolled in hospice. The mean number of days from index discharge to hospice enrollment was 59 days (SD 56.5) and the average hospice length of stay was 49 days (SD 78). Of the hospice enrollees, 324 (1.4%) were completely dependent on toileting compared to 834 (3.6%) of non-hospice enrollees (p<0.001). Of the hospice enrollees, 1,906 (8.3%) were short of breath at rest or with minimal exertion compared to 7,117 (31.1%) of non-hospice enrollees (p<0.001). Of the hospice enrollees, 249 (1.1%) had pain all of the time compared to 1,162 (5.1%) of non-hospice enrollees (p=0.56).

Conclusions: Advanced HF patients have severe symptoms, poor functional status, high utilization, and low hospice use.

Implications for Research, Policy, or Practice: Further study is needed to identify ways to increase earlier hospice enrollment in this population.

“Caring with Heart” In Their Own Words: The Meaning of Caring for Seriously Ill Patients (S739)

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Objectives
• Discuss the importance of caring as the essence of quality humanistic care and central to the provision of palliative care.
• Identify clinicians behaviors perceived as caring by seriously ill patients.
• Devise strategies to improve caring behaviors of practicing clinicians in diverse healthcare settings.

Background: Caring is the essence of high quality palliative care. Caring is a universal phenomenon that is expressed in very different ways in different cultures. It is important for clinicians to understand what behaviors patients perceive as caring. However, little is known about how seriously ill patients perceive caring.

Research Objective: The purpose of this investigation was to understand the meaning of caring from the perspective of seriously ill patients.

Methods: This qualitative descriptive study was conducted in three intensive care units (ICUs) in a university hospital in Egypt. Interviews were conducted with 22 participants who were patients in one of the three ICUs. Participants were asked to describe ICU clinicians’ behaviors they perceived as caring. Interviews lasted 30 to 45 minutes. All of the interviews were audio recorded and transcribed. Data was analyzed by conducting thematic analysis. Data saturation was achieved and trustworthiness was established.

Results: Caring was conceptualized as “care with heart” that was reflected by clinicians’ passion, authentic concern, and close human relationship between clinicians and patient that respected patient dignity and focused on the provision of comfort. Three themes emerged that described clinicians’ caring, including having a relationship as a human being/presencing, preserving patient dignity, and comfort.

Conclusion: The care of the seriously ill need to be based on a clinician-patient relationship that connotes more than an institutional performance of duties but treats patients as human beings and creates a supportive familial environment in which the clinician recognizes the patient as a person.

Implications: Caring & caring behaviors should be integrated into palliative care education and practices as one of the essential palliative care core competencies. Research is needed to design innovative educational strategies that promote clinicians’ caring behaviors.

Want to Graduate Clinicians Who Care? A Caring Behavior Scale for Healthcare Students
(S740)
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Objectives

• Discuss the importance of incorporating a caring behavior measuring instrument into palliative care education.
• Summarize the process of developing an instrument.
• Describe the psychometric properties of The Caring Behavior Scale.

Background: Caring is the core and essence of quality humanized care. However, caring and other affective objectives receive little to no attention in healthcare education compared with the current emphasis on the acquisition of technical skills. A valid and reliable tool to measure caring behaviors of healthcare students could help cultivate and motivate their caring behaviors. However, no caring behaviors measuring instrument is currently available that is designed from an educational perspective.

Research Objective: The development and the psychometric evaluation of an instrument to measure healthcare students’ caring behaviors.

Methods: The study consisted of two phases and five steps. The first phase was concerned with the development of content domains and items, while the second phase focused on the initial psychometric evaluation and data analysis of the scale. In phase I, content domains were defined based on a qualitative study conducted by the researcher to examine the meaning of caring for patients in Egypt. Scale items were generated, the instrument content validity was evaluated, and the instrument was pretested. In phase II, the instrument was used to measure the caring behaviors of 112 nursing students. The derived data was used in the factor analysis to determine construct validity.

Results: The scale was proved to be valid with a CVI (Content Validity Index) of 0.97 and showed high internal consistency reliability with a Cronbach’s alpha of .93. The resulting scale consists of 28 items in three subscales. Subscale I: “Having a relationship as a human being/ Presencing,” subscale II: “Preserving patient’s dignity & subscale III: “Comforting.”

Conclusions: The Caring Behavior Scale is a reliable and valid instrument to measure caring behaviors of healthcare students.

Implications: Further research is needed to accumulate evidence for the validity and reliability of the scale. Incorporating the scale into undergraduate healthcare education and ongoing behavioral training of healthcare professionals could help promote the perception of patients and their families of the quality of clinicians’ caring behaviors.

Multiple Code Status Reversals in an Elderly Dialysis Cohort: Identifying Factors Influencing Patient Ambivalence About Goals of Care (S741)
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Objectives

• Appropriate utilization of palliative care.
• Understand the reasons for code status reversal in a select cohort.

Original Research Background: Elderly patients on hemodialysis (HD) have poor survival and symptom burden that rivals that of cancer patients. These patients also receive significantly aggressive medical treatment at the end-of-life including cardiopulmonary resuscitation, while hospice and palliative services are underutilized.

Research Objectives: To better understand this disconnect by studying the context of code status decisions and code status reversals in a cohort of very elderly (≥75) incident HD patients at our institution.

Methods: A retrospective chart review of patients 75 years and older who initiated renal replacement therapy at a mid-west dialysis network between Jan 1, 2007 and Dec 31, 2011. Data were collected regarding the frequency and circumstances surrounding code status reversal.

Results: Of 360 patients, there were 421 code status reversals (308 Full Code to Do not resuscitate (DNR) and/or Do not intubate (DNI) and 113 DNR/DNI to Full Code). 241 patients changed their code status between 1-11 times and 19 patients (5.3%) changed their code status at least 5 times. 143 (34%) of these changes occurred at the time of hospital admission; 98 (23.3%) occurred during hospitalization at times of clinical deterioration; 80 (19%) resulted from elective discussions between the healthcare team and patient during hospitalization at times of clinical stability; 49 (11.6%) occurred in the peri-procedural setting; 35 (8.3%) occurred in the outpatient setting. Among changes from DNR/DNI to Full Code, 50 (44.2%) occurred on hospital admission while 34 (30.1%) occurred peri-procedurally.

Conclusions: The majority of code status changes occurred on hospital admission at the encounter of a patient in a high stakes
situation with a physician the patient has just met or (more likely at our teaching institution) a learner with less experience in these high stakes conversations. We speculate that lack of physician comfort or training pertaining to code status discussions may influence dialysis patients’ ambivalence about goals of care.

**A Team of Experts or an Expert Team: Interdisciplinary Teamwork and Perceptions of Palliative Care Quality (S742)**

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**Objectives**

- Identify potential IDT structures as targets for quality improvement (QI) programs.
- Identify potential IDT processes (e.g., leadership, communication) as targets for quality improvement (QI) programs.

**Original Research Background:** The collaboration of multiple disciplines is required for optimal care of patients and families facing serious illness. While an interdisciplinary team (IDT) approach is widely recognized as important to the provision of palliative care (PC), less is known about how structures and processes of IDTs are associated with perceptions of PC quality.

**Research Objectives:** This study examines how IDT structures (e.g., personnel, certification status, and organizational characteristics) and processes (e.g., leadership, communication) influence provider perceptions of PC quality.

**Methods:** A cross-sectional survey design addressed the research objectives. PC providers completed an online survey from May 2013 to May 2014 which included demographic and organizational questions, and the subscales of the TeamSTEPPS Teamwork Perceptions Questionnaire (T-TPQ).

**Results:** Of the 372 respondents providing complete data on all variables, 81.4% were RNs and 18.6% were other disciplines. The quality of PC was rated as excellent by 51.3% of respondents (versus 48.7% for all other responses). In bivariate analysis, higher perceptions of PC quality were associated with membership on a formal IDT (p=0.002), male gender (p=0.030), less than a masters level education (p=0.014), collaboration with more disciplines (p=0.002), employment in non-acute care settings (p=0.040), and all T-TPQ subscales (leadership, mutual support, communication, team structure [p<0.000 respectively]). In the multivariate model, team structure and communication subscales (OR: 1.133, CI: 1.047-1.225, p=0.002; and OR: 1.093, CI: 1.012-1.180, p=0.023 respectively), collaboration with more disciplines (OR: 1.148, CI: 1.040-1.268, p=0.006), employment in non-acute care settings (OR: 1.891, CI: 1.133-3.157, p=0.015), and male gender (OR: 2.544, CI: 1.073-6.034, p=0.034) were independent predictors of perceptions of excellent PC quality.

**Conclusions:** Perceptions of PC quality may be influenced by both the structures of IDTs as well as the processes associated with IDT functioning.

**Implications for Research, Policy, or Practice:** This research suggests potential targets for quality improvement projects to transform an IDT of experts into an expert team for providing exceptional PC.

**As Real as It Gets: Enhancing Medical Student’s Palliative Communication Skills through Standardized Family Meetings with Onsite-Feedback (S743)**

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**Objectives**

- Discuss how a standardized communication teaching experience can improve learners’ effective communication skills.
- Recognize the benefit of learner exposure to complex communication by simulated family meeting encounters with immediate specific feedback.

**Original Research Background:** Family Meetings (FM) are valuable interventions which promote communication between healthcare teams and seriously-ill patients/families. Palliative Care (PC) communication skills are essential medical education competencies, but few educational interventions have been developed to further foment such expertise.

**Research Objective:** To discuss evaluation methods/results of a Family Meeting Objective Structured Clinical Exam (OSCE) for 4th year medical students (MS).

**Methods:** 4th year MS (n=674) during 2012-2014 academic years completed the FM-OSCE. Students performed the role of
leading FM to discuss prognosis and goals of care. Direct one-to-one feedback from preceptors was given immediately after the encounter.

Results: Preceptor evaluations and feedback comments (qualitative results) revealed four themes in which many students required improvement; 1) Discussing prognosis; 2) Explaining palliative care/hospice; 3) Avoiding medical jargon; 4) Discussing cultural/religious preferences. Evaluation scores also show that the mean response was 28.2 (Min 15, Max 63; SD 7.57), and identified student’s need to; 1) Ask more about the degree of knowledge family members want; 2) Ask religious beliefs; 3) Assess family member’s level of education (p<0.001).

Conclusions: FM-OSCE provided students with a valuable learning experience providing direct feedback and identifying specific areas where MS require further communication expertise.

Implications for Research, Policy, or Practice: Future research is needed on how standardized communication teaching interventions with real time feedback such as FM-OSCEs could improve patient care, patient’s quality of life, and, subsequently, health systems.

Is It Really Worth Undergoing Treatment? Exploring Quality of Life Variables Among Older Adults with Lung Cancer (S744)
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Objectives
• Discuss the importance of considering quality of life as crucial factor when caring for older patients with lung cancer.
• Acknowledge the importance of addressing symptoms and performance status among declining patients suffering from lung cancer.

Background: While cancer survival is increasing in all age groups, lung cancer (LC) survival, the most frequently diagnosed cancer in older adults (OA=65 years old), remains low, with no way of exploring treatment implications in the quality of life (QOL) of this population during and after treatment.

Objective: To evaluate QOL and performance status among OA suffering from LC as they underwent treatment.

Methods: Retrospective chart review (2007-2012) evaluating OAs’ outcomes as compared to subjects <65 (YA) at the time of diagnosis. Variables included ECOG (Eastern Cooperative Oncology Group, evaluated performance: 0 functional-5 being dead), stage at time of diagnosis, QOL (measured as depression, fatigue, pain), and posttreatment outcomes.

Results: n=108, Mean Age=66.48. Ethnicity: Hispanic (OA n=18:36% vs YA n=16:31%) Gender: Male (OA 52% vs YA 64%), p=NS.

When measuring disease severity, YA were diagnosed with LC at greater disease severity (p=0.0110), yet OA died after treatment more frequently (p=0.0032). Despite these differences, there were no significant differences in the rate OA and YA were referred to palliative care/hospice.

Performance: OA had ECOG score 0 (52%) or 1 (32%) before treatment. After treatment, majority of ECOG scores severely worsened to 2 (42%), 3 (23%), or 4 (26%) (p=0.0107). The frequency of OA needing caregivers increased from 17% to 47% (p=0.0027). Fatigue/insomnia was present in 43 (59%) cases reviewed, and only 3% treated for sleep. Depression was positive in 24% before treatment and 30% after. Pain was positive for 31% OA before treatments, increasing to 56% after treatment.

Conclusion: LC treatment decreased QOL and performance and increased symptoms among all subjects. The OAs’ QOL is greatly impacted as they are sicker at time of diagnosis, which makes it harder to maintain performance.

Implications for Research, Policy, or Practice: Future studies must address the impact of early palliative care referrals to further address symptoms and functional decline among OA with LC.

Making the Case: Is Outpatient Palliative Care for Oncology Patients Feasible within the Safety Net? (S745)
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Objectives
• Define three characteristics common to the presentation and care of oncology patients within safety net settings.
• Explain how to use cancer registry and claims data to analyze NQF endorsed quality metrics in the care of oncology patients near the end of life.

• Create a compelling business case for outpatient palliative care leveraging data readily accessible in your institution.

Original Research Background: Palliative care (PC) combined with standard oncology care can improve patient outcomes and reduce healthcare costs. In safety net systems, where limited resources mandate containing costs across settings, outpatient PC (OP PC) could be an important tool for improving quality while lowering costs. However, oncology patients in safety net systems often present late in the course of illness, raising concerns about the proportion of patients who could be referred to an OP PC clinic.

Research Objectives: Examine the need, feasibility, and expected benefits of OP PC for oncology patients within a safety net setting.

Methods: Retrospective cohort study of oncology patients at an urban, safety net hospital that died between July 2010 and June 2013. We used cancer registry and claims data to identify decedents and evaluate utilization patterns and cost of care in the final 6 months of life. Baseline involvement of the inpatient PC service and performance on several NQF quality metrics were also evaluated.

Results: Among the 403 decedents, we found heavy, late utilization of inpatient (IP) services. While late presentation was common, 133 patients (33%) had multiple health system encounters 91-180 days prior to death, thus early enough to be referred to an OP PC clinic. Prior research suggests that utilization of IP services in the final month of life is 40% lower amongst patients who receive early OP PC. Using this estimate, we determined providing OP PC to only 50 patients annually would avoid 38 hospitalizations, with resulting avoided direct costs of $846,450. Annual staffing costs for an OP PC team (20% FTE) were estimated at $88,290.

Conclusions: This feasibility study reveals that OP PC in the safety net can provide substantial return on investment.

Implications for Research, Policy, or Practice: This analysis represents a replicable means by which palliative care programs can create a compelling business case for initiation of OP PC services.

Geriatrics for the Hospice and Palliative Care Provider (S746)
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Objectives
• Identify patients with delirium using a standardized, evidence-based delirium screening tool.
• Develop a care plan to evaluate and treat delirium, including non-pharmacologic treatments.
• Identify potentially inappropriate medications for older adults, using evidence-based criteria.

Original Research Background: Though geriatric medicine and palliative care have many areas of overlap, there are areas of expertise specific to each; hospice and palliative care providers often lack knowledge of geriatric principles. Given that many hospice and palliative care patients are frail older adults, it is imperative that hospice and palliative care providers know basic principles of geriatric medicine.

Research Objectives: This curriculum teaches geriatric medicine principles to hospice and palliative care providers, with the aim of increasing knowledge and building confidence related to implementing geriatric medicine principles in their practices.

Methods: The curriculum is taught across several modules, in a case-based, interactive, small-medium group format, focusing on issues common in the geriatric population at or near end-of-life. Topics include dementia, delirium, polypharmacy, and other syndromes common in older adults. The curriculum has been used with palliative care fellows and local hospice teams. Using simulated cases, learners identified risk factors for delirium; they applied the Confusion Assessment Method (CAM) to identify delirium and used the Beers criteria to identify potentially inappropriate medications for their older adult patients. Groups developed ideal care plans for patients with delirium, polypharmacy, and other geriatric syndromes. A retrospective pre-post evaluation followed the teaching session.

Results: Learners (n=22; 86% female; 73% white) noted that they had not previously heard of or used the CAM and Beers criteria, but indicated that they would now use these tools in their everyday practice. Following participation, there was significant improvement (p ranges <.001 to <.005) in 8 of 13 areas assessed, with learners showing improved knowledge of geriatric medicine principles and greater confidence about applying that knowledge.

Conclusions: This curriculum can help hospice and palliative care providers improve their knowledge regarding principles of geriatric medicine.
Implications for Research, Policy, or Practice: Ideally, this curriculum would be expanded to learners of other disciplines, to more globally improve the care of older adults at end-of-life.

A National Study of Live Hospice Discharges Between 2000 and 2012 (S747)

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Objectives
• Identify trends in live hospice discharges between 2000 and 2012.
• Recognize factors related to live discharges and identify associated patient care concerns.

Original Research Background: Live hospice discharges represent a Medicare Hospice Benefit vulnerability. Little is known how discharges have varied over time by patient and provider characteristics.


Methods: In this retrospective cohort study of Medicare hospice discharges, we used discharge status codes to determine whether a hospice discharge was a live discharge. Discharges in the first six months of 2000, 2006, 2008, 2010, and 2012 were examined for live discharges. Among live discharges, we identified burdensome transitions (hospice discharge followed by hospital admission, then hospice readmission). A mixed-effect multivariate logistic model was used to predict the rate of each outcome (live discharge and burdensome transition) with interaction terms for year and tax status after adjusting for patient age, gender, race, and hospice principal diagnosis.

Results: Between 2000 and 2012, the number of hospice programs increased from 2,233 to 3,670, with the percentage of for-profit hospices increasing from 28.2% in 2000 to 52.8% in 2012. The overall rate of live discharges increased from 13.7% in 2000 to 18.1% in 2012. Our work finds that the adjusted rate of live discharges differed by hospice tax status. For-profit hospice programs had an adjusted probability of live discharge of 17.8% in 2000 and 25.4% in 2012. Conversely, non-profit hospice programs had a modest concurrent increase in the rate of live discharge from 15.2% to 16.8%. The overall rate of burdensome transitions increased from 3.4% in 2000 to 6.4% in 2012. Similar to live discharge, for-profit hospices had a higher rate of burdensome transitions (6.2%) compared to non-profit hospices (3.6%) in 2012.

Conclusions: With rapid growth of for-profit hospice programs between 2000 and 2012, there has been a concurrent increase in the rate of live discharges and burdensome transitions. Much of this growth appears to be concentrated within for-profit hospice programs.

Assessment of Acute Pain Using Physiologic Variables in Non-communicative Patients: Nurses’ Perspectives (S748)

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Objectives
• Provide a synopsis of selected literature of physiologic variables (i.e., diaphoresis, blood pressure, heart rate, and respiratory rate) as they relate to the assessment of acute pain in adult patients who cannot self-report.
• Discuss acute care nurses’ use of specific physiologic variables (i.e., diaphoresis, blood pressure, heart rate, and respiratory rate) to assess pain in patients unable to self-report, including their perceptions of what constitutes significant changes indicative of acute pain.

Original Research Background: Physiologic variables (PV) believed to indicate acute pain include diaphoresis and changes in blood pressure (BP), heart rate (HR), and respirations. Nurses report using PV to help determine if patients who cannot self-report are experiencing pain, but literature is lacking.

Research Objectives: To explore how nurses use PV and PV changes to assess pain in patients unable to self-report.

Methods: Two focus groups were conducted with 13 nurses at an academic medical center to elicit their experiences and opinions using PV and changes in PV to assess acute pain in patients who can’t self-report. Open-ended questions and systematic probes were used until saturation was reached. Data were organized and synthesized using content analysis.

Results: When nurses noted PV changes, they said they explore and rule out other causes before attributing them to pain. They
reported that changes in respiratory rate, pattern, and depth are the first and most easily observed pain-related PV. Changes in systolic BP were more relevant than changes in diastolic BP and HR changes may also be relevant. Diaphoresis was considered a late sign of uncontrolled pain. Behavioral indicators of acute pain in non-communicative patients were deemed more important than physiologic indicators. Nurses recommended using PV to help assess acute pain and pain relief.

Conclusions: PV may add important information to the assessment of acute pain in non-communicative patients and may be useful for evaluating pain and pain relief. Although PV changes can be explained by other factors, their complimentary role to behavioral indicators needs systematic exploration.

Implications for Research, Policy, or Practice: Findings elucidate nurses’ use of PV in pain assessment and can inform development and refinement of pain assessment tools for patients who cannot self-report.

**A Palliative Care Consult Trigger Program for the Geriatric Oncology Population (S749)**

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Objectives
- Learn about an inpatient pilot Geriatric Oncology Trigger Program.
- Identify the risk factors present in our patient population.
- Identify at least 3 factors thought to be most important in the geriatric oncology population.

Original Research Background: Geriatric oncology patients represent a particularly vulnerable, rapidly increasing patient population. Our hospital has developed a pilot Geriatric Oncology Trigger Program to identify at risk inpatients who may benefit from earlier palliative care interventions.

Research Objectives: To identify the prevalence of risk factors for geriatric oncology patients associated with increased length of stay, readmission rates, and morbidity.

Methods: A protocol was initiated to trigger palliative care consults on patients ages 65 or older admitted to the oncology unit. Patients screened positive if they triggered with at least one response on a nine-question worksheet. 101 geriatric oncology inpatients were screened over a two-year period at our 496 bed, tertiary care, academic, city hospital through the Trigger Program.

Results: 98 of 101 patients screened positive and received a palliative care consult. 70 patients (71.4%) did not have an advanced directive, 45 patients (45.9%) did not have a healthcare proxy, 37 patients (37.7%) reported uncontrolled pain, and 33 patients (33.7%) lived alone. 22 of the 33 patients (66.67%) that lived alone did not have a healthcare proxy. The mean number of triggers was 3.25 per patient.

Conclusions: Our program elucidated the proportion of geriatric oncology patients without advanced directives and healthcare proxies in our hospital and identified a concern for inadequate treatment of pain in this vulnerable population. We also found that most patients who live alone have not identified a surrogate decision maker.

Implications for Research, Policy, or Practice: The extant literature shows that lack of an advanced directive is associated with increased hospital deaths, higher costs, and fewer hospice enrollments. We need to focus our attention on discussing advanced directives in these patients as early as possible to improve outcomes and patient experience. We hope that by triggering consults earlier in their hospital course, we can effectively target this population to improve their symptoms and outcomes.

**Do Hispanics Prefer to be Full Code at the End of Life? The Impact of Palliative Care Consults in Clarifying Code Status Preferences in Spanish-Speaking Patients (S750)**

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Objectives
- Describe demographics, disparities, and care preferences of Hispanic populations at the end of life.
- Develop patient plans of care that are based on effective communication strategies that clarify the cultural values, goals, and needs of the patient and family.
- Compare and contrast code status decisions among three different patient groups after palliative care consult (Non-Hispanic White vs English-speaking Hispanic vs Spanish-speaking Hispanic patients).

Original Research Background: Hispanic patients are documented to face disparities at end-of-life. They are more likely to die full
code and less likely to have discussions regarding prognosis and withdrawal of life support despite studies showing Hispanic patients value comfort over extension of life. Barriers to patient centered care may include language, socioeconomic status, and health literacy. Palliative Care (PC) teams utilize family meetings and professional interpreters to address these barriers.

**Research Objectives:** We evaluated the impact of PC consults on code status preferences, comparing seriously-ill Hispanic and Non-Hispanic White patients.

**Methods:** Retrospective cohort study of all patients referred to the palliative care service at Santa Clara Valley Medical Center, a 574-bed teaching county hospital, from 2006 to 2012. We evaluated ethnicity, patient language, code status at admission and after palliative care consult, and hospice discharge. Chi-squared tests were used to analyze characteristics between three groups: Non-Hispanic White, English-speaking Hispanic, and Spanish-speaking Hispanic patients.

**Results:** Of 925 patients, mean age was 59yo (range 3-99yo), 56% Male, 44% Female. 511 (55%) were Non-Hispanic White, 208 (23%) were English-speaking Hispanic and 206 (22%) were Spanish-speaking Hispanic patients. On admission, there was no statistically significant difference in DNR/DNI status among the three groups (43%, 36%, and 41% respectively, p=0.5). After PC consults, Spanish-speaking Hispanic patients were more likely to change their code status to DNR/DNI than Non-Hispanic White and English-speaking Hispanic patients (44% Vs 32% Vs 28%, p=0.05). Spanish-speaking Hispanic patients were also more likely to be discharged to hospice (33%, 23%, and 29%, respectively, p=0.04).

**Conclusions:** Spanish-speaking Hispanic patients were more likely to change from full code to DNR/DNI and to be discharged to hospice as compared to Non-Hispanic White and English-speaking Hispanic patients.

**Implications for Research, Policy, or Practice:** PC consults may play an important role in helping Spanish-speaking Hispanic patients to align their care with their personal values.

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**Review of Themes and Recommendations Encountered in Palliative Care Consults with Pediatric Dialysis Patients (S751)**

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**Objectives**

- Understand the complexities of providing recommendations for the pediatric dialysis population.
- Recognize common symptoms in the pediatric dialysis population.

**Original Research Background:** End stage renal disease (ESRD) requiring dialysis is frequently life-limiting in children. Mortality rates are approximately 30 times that of the general population, although they are decreasing as available therapies improve. Pediatric palliative care services have been used occasionally in this population; however, there is scant literature available on whether patients with consultations by a designated pediatric palliative care service have common themes to their recommendations or interventions.

**Research Objectives:** The goal of this research was to better characterize palliative care team involvement with this specific population.

**Methods:** The retrospective study reviewed pediatric palliative care consultations for children with ESRD undergoing dialysis from 1/2006-12/2012. Quantitative data regarding patient was collected and impressions from the initial consultation were compiled. Consults were de-identified and re-analyzed for additional underlying themes using consensus coding.

**Results:** Chart review included thirty-seven patients aged 5 weeks through 18 years; seven patients were excluded after initial review. Eligible patients were on chronic hemodialysis, peritoneal dialysis, or acute hemodialysis. Of the standard palliative care metrics identified by the consultation team, the most common was “complex or time-intensive communication and/or interdisciplinary psychosocial support” (65% of consults), followed by “information/education regarding palliative care and hospice philosophies” (59%) and “clarification of goals and assistance with difficult decision-making” and “resources/transitions,” both 41% of consults. More than 50% of patients requiring improved communication with healthcare providers. Specific symptom management recommendations were also detailed, identifying pain (32%), poor sleep (24%), fatigue (27%), and poor appetite (27%).

**Conclusions:** This study demonstrates a retrospective review of one institution’s experience with pediatric end-stage-renal disease patients. Themes addressed during consultation are highlighted to assist palliative care providers and nephrologists in assessing and developing tools for intervention in this patient population.

**Implications for Research, Policy, or Practice:** This study demonstrates important themes for practitioners who deal with this population to address.

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**A Systematic Review of Informal Caregiver Responses to Pain in Patients with Advanced**
Illness (S752)
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Objectives
• List at least three common informal caregiver responses to patients’ pain.
• Discuss at least one gap in the existing literature which could lead to future research.

Systemic Review Background: Many patients who receive palliative care have family members and loved ones providing care in the home setting. This can be particularly difficult in regards to pain management. While research has been conducted concerning how informal caregivers respond to the patient’s pain, there has not been a review to determine our knowledge of these phenomena.

Aims: The aims of this review are to: 1) summarize the evidence concerning informal caregiver (ICG) reactions to pain and 2) identify the gaps in the existing research that may require additional studies.

Methods/Session Descriptions: Searches were conducted in PubMed, CINAHL, PsychInfo, and Web of Science using terms including: terminal care, hospice, palliative, end of life, pain management, family caregiver, and spouse caregiver. Inclusion criteria included adults over the age of 18, qualitative and quantitative research studies, published in 1994 or after, and caregivers over the age of 18. Studies not in English, published before 1994, related to suicide or assisted suicide, and studies that included caregivers or patients under the age of 18 were not included in the search. 158 articles were screened and 24 articles met the criteria and were analyzed.

Conclusion: Qualitative, quantitative and mixed methods studies were included. Some studies included ICG response to patient pain as a specific aim and for others it was reported as a single item in a study with a broader focus on caregiving and pain management. It is clear that ICG responses to patient pain include feeling helpless, lack of confidence, anxiety, fear, and decreased self-efficacy. The caregiver’s response to pain can further affect their assessment of the patient’s pain and their ability to manage it. There have been some intervention studies that have shown a decrease in these negative responses in the experimental group. Developing and testing interventions to improve ICG knowledge, beliefs and attitudes which affect their responses to the patient’s pain may improve patient and caregiver outcomes.

Burnout in Palliative Care: A National Study of Palliative Care Practitioners in Singapore (S753)
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Objectives
• Understand the definition of Burnout and Psychological Morbidity in Palliative Care.
• Understand the factors associated with Burnout and Psychological Morbidity in Palliative Care.

Original Research Background: Palliative Care Practitioners are exposed to the trauma of death and dying daily. Coupled with high patient load and inadequate staffing we are at risk of developing Burnout and Psychological Morbidity that may lead to some leaving the profession.

Research Objectives:
• To study the prevalence of Burnout and Psychological Morbidity among Palliative Care Practitioners in Singapore
• Demographic factors associated with Burnout and Psychological Morbidity in Palliative Care.

Methods: We conducted a multi-centred, prospective and cross-sectional study across all palliative care institutions within the public healthcare sector in Singapore using the Maslach Burnout Inventory (MBI) to measure Burnout as well as General Health Questionnaire (GHQ-12) to measure Psychological Morbidity.

Results: We found that 33% (91 out of 273) respondents fulfilled the criteria for Burnout and 28% (77 out of 273) had Psychological Morbidity. On multi-variate analysis, the factors that were found to be strongly linked to Burnout and/or Psychological Morbidity were long working hours (>60 hours per week) (Odds Ratio: 9.02, p=0.002), those who considered themselves less spiritual (Odds Ratio: 2.66, p=0.012), and those who were single (Odds Ratio: 2.02, p=0.04). We also found that those who worked in Home Hospice (46.0%) were more at risk of Psychological Morbidity as compared with those in inpatient hospice (26.0%) or in a Palliative Care Service in a hospital (17.5%).

Conclusions: Burnout and Psychological Morbidity is high among Palliative Care Practitioners in Singapore. Long working hours, being less spiritual, being single, as well as working in Home Hospice Care were factors associated with Burnout or Psychological Morbidity.

Implications for Research, Policy, or Practice: Palliative Care leaders and policy-makers need to do more to address the long
working hours that lead to Burnout and Psychological Morbidity in this field. Practitioners should also be aware of other factors that may be associated with Burnout and Psychological Morbidity.

**State-Mandated Prescribing Agreements for Patients with Chronic Non-malignant Pain in a Palliative Medicine Outpatient Clinic: Year Two (S754)**

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**Objectives**
- Understand the history of the mandate for prescribing agreements in patients with chronic non-malignant pain.
- Identify the most common symptoms and diagnoses in patients who participated in mandated prescribing agreements.
- Identify the violation rate for urine drug screens and possible risk factors for violating prescribing agreements.

**Original Research Background:** In response to an epidemic of deaths from opioid overdoses, Florida enacted laws that restricted prescribing of controlled pain medications for chronic non-malignant pain. Although hospice physicians were exempted from this mandate, physicians practicing palliative care in non-hospice settings were required to use prescribing agreements.

**Research Objectives:** We studied the impact of state-mandated prescribing agreements on patients with chronic non-malignant pain receiving care in an outpatient palliative medicine clinic.

**Methods:** We studied all patients participating in mandated prescribing agreements from 2012 through 2013. We recorded patients’ demographic information, pain-related diagnoses, duration of enrollment, and results of required urine drug profiles (UDPs). We examined relationships between these variables to identify risk factors for agreement violations.

**Results:** 28 patients participated in prescribing agreements during 2012, while 26 patients participated in 2013. The most common diagnosis was sickle cell disease, affecting 41% of patients. The most pain symptoms were back pain (39%) and arthralgia (32%). The rate for UDP violations was 18% in 2012 and 15% in 2013; the overall UDP violation rate for the study was 17%. Cannabinoids (89%) accounted for all but one UDP violation. Although males had 80% of UDP violations in 2012, only half of UDP violations involved males in 2013. During 2012, 8 patients had delays in submitting UDPs, and half experienced UDP violations, compared to just 2 of 20 patients who submitted UDPs on time. There were no delayed UDP results in 2013.

**Conclusions:** The most common diagnoses were sickle cell disease and osteoarthritis. Most patients complied with their prescribing agreements, but 17% had UDP violations. Delay in submitting a UDP was a risk factor for violations, but 2013 results suggested male gender is not a risk factor.

**Implications for Research, Policy, or Practice:** Violations of prescribing agreements were not rare and usually involved cannabinoids. Patients who delayed submitting UDPs were at risk for prescribing agreement violations.

**Concordance Between Structured and Unstructured Debriefing on Symptom Burden in Breast Cancer: A Mixed Methods Analysis (S755)**

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**Objectives**
- Learn about symptom burden associated with breast cancer treatment and survivorship.
- Learn about factors associated with symptom attribution and reporting.

**Original Research Background:** Breast cancer symptom burden should be monitored longitudinally in survivorship due to the increase in survival time of these patients and the lasting effects of cancer and treatment. Understanding patients’ survivorship needs is imperative for treatment as well as health services design.

**Research Objectives:** We compared symptom burden as reported using a validated standardized instrument with participant reports of symptoms attributed to their cancer treatment in a structured interview.

**Methods:** Using a mixed methods design, we compared patient reported symptoms using a structured instrument (MDASI) compared to one open-ended question (What symptoms have you experienced since completing breast cancer treatment?). We then categorized the qualitative responses using the MDASI categories to indicate yes/no if that symptom was reported.

**Results:** The sample included 40 females mostly White (82.5%) and middle aged (mean=57.23, SD=9.15) breast cancer survivors within 6 months of treatment completion. Concordance rates were calculated using the Kappa statistic. Among the 13 MDASI symptoms, concordance between unstructured self-reported symptom burden and the MDASI structured report was
fair to poor across all categories. Pain, disturbed sleep, difficulty remembering, numbness/tingling had fair concordance (Kappa range: 0.283-0.344), and all others had poor agreement (Kappa <.20). The mean for some symptoms were subthreshold for clinical significance (MDASI M 4), therefore treatment may not have been warranted (eg, pain and numbness/tingling); others did achieve clinical significance (MDASI L 4) (eg, difficulty remembering, changes in appetite, sleep disturbance [mean range: 4.63-5.0]) for participants that did not name the respective symptom when asked an open-ended question.

Conclusions: Results highlight the importance of incorporating structured ways to assess symptom burden in order to better manage symptoms throughout the cancer trajectory. Poor concordance may also be associated with study design (question order) or sample size.

Implications for Research, Policy, or Practice: Further research is warranted to explore patients’ attributions of symptom burden and the relationship of attribution to reporting of symptoms.

**A Terminal Decline Model for Fast Track Palliative Care Trials (S757)**

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**Objectives**

- Correctly analyze the quality of life and survival data.
- Apply appropriate modeling approach for fast-track palliative care randomized clinical trials.

**Original Research Background:** In randomized fast-track trials (delayed-start), the fast-track arm receives intervention immediately after randomization and the control arm receives intervention after a certain period following randomization during which time standard care is provided. Such trials are more acceptable to patients, families, and physicians because no one is denied access to the intervention, while still allowing for a rigorous assessment of a palliative care intervention. Many issues remain with respect to implementing such designs and analyzing the longitudinal quality of life and survival.

**Research Objectives:** In this paper, we will propose a novel approach for jointly modeling quality of life data and survival to analyze fast-track designs in palliative care.

**Methods:** We have developed a novel joint modeling approach where time-varying coefficients will be used in both the survival sub model and the piecewise mixed effects sub model for the trajectory of the longitudinal quality of life at the end of life. Quality of life at fixed time point prior to death, quality of life conditional on being alive and quality-adjusted life years are estimated and compared between the intervention and control arms.

**Results:** ENABLE III is a recently completed fast-track trial at Dartmouth comparing palliative care intervention with the delayed start arm receiving palliative care after 3 months. Preliminary results show that the risk of death (hazard ratio [HR] (95% CI)) for immediate participants over the first year was 0.72 (95% CI, 0.57-0.89; p=0.003). The difference of the primary patient-reported outcomes at 3 months was generally increased but not statistically different: for the FACIT-pal (immediate group estimated means [95% CI] 129.9 [126.6, 133.3] vs delayed group 127.2 [124.1, 130.3]; overall p=0.34) and the QUAL-E symptom impact scale (11.4 [10.8, 12.1] vs 12.2 [11.6, 12.8]; overall p=0.09).

**Conclusions:** The joint modeling approach is an efficient and interpretable method for fast track palliative care study designs.

**Titrate to Death? Prescribing Patterns of Continuous Morphine Infusions at End of Life (S758)**

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**Objectives**

- Discuss detailed findings regarding continuous morphine infusion prescribing patterns and limitations for end-of-life care patients at an academic US medical center.
- Promote discussion amongst the presenter and the audience members over issues surrounding opioid doses at the end of life and receive feedback/recommendations to optimize prospective validation of these findings.

**Original Research Background:** Continuous morphine infusions (CMIIs) treat pain and dyspnea at the end of life (EoL). Ideally, opioid doses are tailored to individual opioid requirements and kidney function; however, CMIIs are often rapidly escalated regardless of individual parameters. Rapid, unrestricted opioid escalation is not supported by opioid pharmacology.
**Research Objectives**: The objective was to evaluate EoL CMI prescribing patterns.

**Methods**: This retrospective chart review evaluated patients receiving CMI at EoL at a single academic US hospital (2013-2014). Statistical analyses of electronic medical record data was performed using SAS.

**Results**: 161 patient charts were analyzed (68F, 93M, mean age 66.1±16.2 yrs). At time of CMI initiation, 43.5% (n=70) were opioid naïve, and 24.8% (n=40) had a GFR <30 mL/min. 64.6% (n=104) did not receive any bolus doses prior to CMI initiation. The mean 24-hr IV morphine equivalent prior to CMI initiation was 44.8 mg (range: 0-1200 mg, SD 140.7) and 229.9 mg (21-5193 mg, SD 445.9) at time of death. The mean CMI starting IV rate was 3.4 mg/hr (0.4-30 mg/hr; SD 3.8) and 7.9 mg/hr (0.4-70 mg/hr; SD 9.9) at time of death. Mean number of CMI rate adjustments was 2.5 (0-25; SD 3.5) and number of bolus doses was 4.3 (0-27; SD 5.1). Mean time from CMI initiation to death was 15.2 hrs (0.05-126.9 hrs; SD 21.3). Patients received an increase of +413% 24-hr IV morphine equivalents or +132% CMI hourly rate. A positive association between time of death and total morphine received was observed (r=0.16; p=0.03).

**Conclusions**: Hospitalized patients at EoL received variable and rapid escalations of hourly CMI rates within hours of death. A weak but statistically significant association exists between the time to death and total amount of morphine received.

**Implications for Research, Policy, or Practice**: This retrospective analysis suggests that CMI may be titrated regardless of patient-specific variables potentially hastening death. Further investigation is warranted.

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**The Nurse Work Environment and Turnover in Perinatal Hospices (S759)**

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**Objectives**
- Describe the nurse work environment in perinatal hospices.
- Identify the nurse work environment characteristics related to RN turnover.

**Original Research Background**: Given the current healthcare reform environment, the loss of registered nurse (RN) staff to turnover is a concern in hospices, especially among those that require specialized nursing skills. Perinatal hospices provide specialized nursing care for mother and families who wish to carry out a birth even when a baby’s death is imminent. Although job satisfaction and burnout have been shown to contribute to turnover, the characteristics of the nurse work environment may be important predictors of nurse turnover. Understanding the unique perinatal hospice nurse work environment and its influence on RN turnover may be essential for advancing knowledge of and compassion for families at end of life.

**Research Objectives**: The study examined the effect of the nurse work environment on RN turnover in perinatal hospices.

**Methods**: This correlational design study used the 2007 National Home and Hospice Care survey. Data on fulltime RN turnover and the nurse work environment (i.e., hospice environment, nursing unit environment, nursing unit structure) were analyzed from a sample of 728 perinatal hospices. Associations were calculated using multivariate ordinary least squares regression.

**Results**: The fulltime RN turnover rate was 5.2%. Findings revealed that suburban perinatal hospices (β=-0.05, p<0.05) and work environments with clinical support from clinical nurse specialists and nurse practitioners (β=-0.05, p<0.01) were less likely to experience RN turnover. Other nurse work environment characteristics were not associated with RN turnover.

**Conclusions**: The study provides initial insight into the role of the nurse work environment on turnover in perinatal hospices. The results suggest that work environments with greater clinical support structures and nursing expertise available through clinical nurse specialists and nurse practitioners may be critical in reducing RN turnover.

**Implications for Research, Policy, or Practice**: Perinatal nurse leaders and administrators should assess the cost-benefits of clinical support structures to reduce RN turnover.

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**An Advance Care Planning (ACP) Group Medical Visit Increases ACP discussions and Documentation (S760)**

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**Objectives**
- Discuss the impact of the ACP group medical visit on ACP conversations and documentation.
- Discuss the ACP group medical visit model as a strategy to improve patient readiness for ACP in primary care settings.
Advance care planning (ACP) is a health behavior requiring patient-centered education, support, and motivation to promote ACP behaviors. Group medical visits can provide a safe environment that facilitates peer learning. The impact of an ACP group medical visit model on ACP has not been reported.

**Research Objective:** To assess the impact of an ACP group medical visit model on ACP conversations, engagement in ACP behaviors, and documentation among older adults.

**Methods:** Pilot study of a novel ACP group medical visit model in geriatrics clinic. The pilot included two group sessions that were co-facilitated by a social worker and a geriatrician. The model emphasizes collaborative learning to promote learning and engagement in a personalized ACP process. Outcomes were patient evaluations after group visits and ACP documentation at baseline and 3-month follow up by chart review.

**Results:** Twenty-nine patients participated in 5 ACP group medical visit cohorts. Mean age was 77 years old (58% female, 79% white). Patients reported an increase in ACP conversations from 69% before the program to 89% after the program. Patients also reported high levels of readiness to talk with their doctor about choosing a medical decision maker (78%), health situations that would make life not worth living (81%), flexibility for decision makers (89%), and questions to help make medical decisions (85%). Among 19 patients with completed 3 month follow up, there were increased rates of documentation of advance directives (11% to 53%), medical decision makers (26% to 74%), and resuscitation preferences (26% to 53%).

**Conclusions:** The ACP group medical visit model increased ACP conversations, readiness to engage in ACP behaviors, and documentation of ACP.

**Implications:** The ACP group medical visit model warrants further testing to evaluate efficacy and identify key barriers and facilitators to implementation.

**A Novel Advance Care Planning Group Medical Visit for Older Adults in Primary Care is Feasible, Acceptable, and Helpful (S761)**

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**Objectives**
- Discuss the application of the group medical visit model to engage patients in advance care planning.
- Discuss the advance care planning group medical visit model as a potential new strategy for advance care planning in primary care settings.

**Research Background:** The group medical visit model can effectively engage older adults in behavior change related to management of chronic illnesses. Primary care needs models that facilitate high-quality advance care planning. The potential of utilizing the group medical visit model to enhance advance care planning in the primary care setting has not been explored.

**Research Objective:** To assess the acceptability and feasibility of a facilitated advance care planning group medical visit among older adults in one primary care setting.

**Methods:** We implemented and evaluated an advance care planning group medical visit pilot in a geriatrics clinic at an academic hospital over a 9-month period. Outcomes included participation rates and referral patterns, patient evaluations, and qualitative analysis of patient interviews to assess feasibility and acceptability.

**Results:** Of 76 patients referred to the advance care planning group medical visit, 32 patients participated. Five advance care planning group medical visit cohorts (2 visits each) were conducted. Twenty-nine patients returned for the second visit. Over 80% of participants felt the program was better for talking about advance care planning than a usual clinic visit and that the program gave them useful information. In interviews, participants described a desire to participate and advantages to discussing advance care planning in the group visit setting.

**Conclusions:** The high referral and retention rates to the advance care planning group medical visit, as well as participant evaluation and feedback, support the feasibility and acceptability of this program in one geriatric primary care clinic. The group medical visit provided a helpful patient-centered approach to advance care planning in a primary care setting.

**Implications:** An advance care planning group medical visit warrants formal evaluation to determine its efficacy and potential for widespread dissemination and implementation to improve advance care planning.

**Testing a Model of Caregiver Satisfaction with Hospice Care in the Cancer Population (S762)**
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Objectives

- Identify factors that place a caregiver at risk for dissatisfaction with hospice care and potential negative health outcomes.
- Discuss the complex nature of caregiver satisfaction and critique one model of caregiver satisfaction.

Original Research Background: Caregiver satisfaction with hospice care is a quality measure for hospice organizations and predicts caregiver and patient health, mortality, and resource use. Contributing factors to caregiver satisfaction are poorly understood and tested models of caregiver satisfaction in the literature are scarce.

Research Objectives: To fill this gap, our aim was to develop and test a model of caregiver satisfaction with hospice care in the cancer population.

Methods: This retrospective cohort study used national data collected by the National Hospice and Palliative Care Organization (NHPCO) using the Family Evaluation of Hospice Care (FEHC) survey in 2011. We utilized a random sample of 1000 cancer caregivers (70,782 available). Our initial theoretical model posited a relationship between demand (measured by reported patient symptoms) and satisfaction, modified by internal and external caregiver resources. Structural equation modeling was used to test the model and adjustments made to improve model fit.

Results: The final model fit the data well (LR=189.08, df=78; RMSEA=0.04; CFI=0.91; SRMR=0.03). Caregiver satisfaction was predicted by demand—higher perception of demand (more patient symptoms) reduces caregiver satisfaction. Patient age, caregiver race, education, relationship to the patient, and length of hospice stay modify this relationship directly—black, non-spousal, and more highly educated caregivers are less satisfied, along with caregivers of younger patients and those with shorter lengths of stay. Patient and caregiver age, caregiver sex, and length of stay influence this relationship by altering caregiver perception of demand. Younger caregiver and patient age, female caregivers, and longer length of stay increases caregiver demand, decreasing satisfaction. Note that length of stay works both for and against satisfaction.

Conclusions: Caregiver satisfaction is a complex perception that depends on caregiver and patient characteristics, as well as hospice care received.

Implications for Research, Policy, or Practice: Hospice care providers should consider screening caregiver-patient dyads for “high-risk” characteristics and providing additional supportive measures.

Early Palliative Care Involvement for Children with Cancer (S763)

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James Dolan, MD, University of Rochester, Rochester, NY
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Objectives

- Identify what is meant by early palliative care consultation.
- Determine the difference in treatment of physical and psychological symptoms.

Original Research Background: Although the overall survival of children with cancer exceeds 80%, these children experience significant physical, emotional, social, and spiritual suffering during and after therapy. We conducted a prospective study of early palliative care team involvement for children with high risk malignancies.

Research Objectives: To determine if early palliative care involvement for high risk pediatric oncology patients is feasible, acceptable to patients, families, and oncology teams, and helps with symptom management and communication.

Methods: This was a prospective survey-based study. Children with cancer treated at University of Rochester were eligible if they had a high risk malignancy, defined as (1) having a newly-diagnosed malignancy with an estimated overall survival of <50%, (2) requiring hematopoietic stem cell transplantation (HSCT), and/or (3) any relapsed, recurrent or progressive cancer. Parents of these children or children >18YO were surveyed upon study entry, and 3 and 6 months later to assess the impact of early and ongoing pediatric palliative care involvement.

Results: 20/25 eligible patients received a palliative care consultation at diagnosis; 16 families participated in the study. Six children had a newly diagnosed high risk malignancy, nine had recurrent disease and one child had a HSCT. Median age of the children was 5 years (0.1-20 year). The most frequent symptoms at the time of study entry were pain (75%), nausea/vomiting (69%), constipation (44%), and fatigue (44%). 75%, 73%, 43% and 43% reported successful treatment of pain, nausea/vomiting, constipation, and fatigue respectively. The proportion of children with each symptom decreased at 3 months except for...
**Conclusion:** Early palliative care consultation is feasible for high risk children with cancer and the palliative care team can work successfully with the primary oncology team to foster symptom control and communication.

**Implications for Research, Policy, or Practice:** Early palliative care consultation as standard of care/ practice.

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**An Interactive Palliative Care Curriculum for Neurology Residents (S764)**

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Drew Rosielle, MD FAAHPM, University of Minnesota, Minneapolis, MN

**Objectives**

- Describe how a palliative care curriculum could be developed and implemented in a residency training program.
- Compare and contrast the teaching strategies used in a palliative care curriculum for residents.

**Original Research Background:** Most neurologic conditions are incurable progressive diseases that result in significant morbidity and mortality. Therefore, it is critical that graduating neurology residents be competent in caring for patients with serious illness and those near the end-of-life (EOL). This is supported by the Accreditation Council of Graduate Medical Education (ACGME) program requirements for neurology, which dictates that neurology residents must demonstrate knowledge of palliative care, including adequate pain relief as well psychosocial support and counseling for patients and families.

**Research Objectives:** Neurology residency programs must provide formal education in palliative care in order to adequately prepare their graduates. Our Palliative Care and Communication (PCC) curriculum was developed for this purpose.

**Methods:** The learners consisted of junior neurology residents. The curriculum was a 4-day workshop within a 1-month block of intensive education. We used multiple teaching strategies including assigned reading material, PowerPoint didactics, case discussions, and facilitated role-playing. The curriculum was evaluated using anonymous pre- and post curriculum self-rated competence surveys, as well as self-reflection and general feedback. The primary outcome was resident self-rated competence with PCC topics.

**Results:** Six out of six neurology residents completed the pre-survey and five completed the post-survey. Among the neurology residents that completed the post-survey, 100% found the curriculum useful and 60% found it to be very useful. The mean overall competence score (SD) increased from 2.87 (0.46) to 3.18 (0.35) (p=0.01).

**Conclusions:** The PCC curriculum was successfully implemented in a neurology residency-training program. Neurology residents can be taught basic principles of PCC in order to improve their knowledge, skills, and attitudes toward the care of patients with serious illness.

**Implications for Research, Policy, or Practice:** Incorporating PCC curriculums into other residency-training programs may address the growing need for palliative care education among physicians caring for patients with serious illness and those near the EOL.

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**Indicators of the Quality of End of Life Cancer Care at an Academic Medical Center (S765)**

Susan McLennon, PhD RN, Indiana University School of Nursing, Indianapolis, IN

**Objectives**

- Discuss improvements needed in end of life care in hospitalized patients with advanced cancers.
- Take away examples of types of quality indicators that can be measured and feasible methods for accomplishing this.

**Original Research Background:** Many advanced cancer patients receive potentially non-beneficial medical treatments as they near the end of life (EOL) that are not congruent with their authentic preferences. National cancer experts have recommended that healthcare institutions systematically assess the quality of EOL cancer care.

**Research Objectives:** The purpose of this study was to describe the quality of EOL cancer care at an urban academic medical center in the Midwest.

**Methods:** Following national EOL cancer care guidelines, data were abstracted from electronic medical records of patients age 18 or over undergoing treatment for solid tumor cancers admitted to two oncology units for a period of six months. Data were analyzed retrospectively from date of death.

**Results:** Of the total (n=314), deceased patients (n=138) were primarily male (58%), white (85%), and older (M=62.5 years). Mean time from enrollment to death was 51.2 days. Among hospice admissions, 43% were within 1 week of death. Palliative care consults occurred in 14.7%. Chemotherapy was received by 31% within 30 days of death. Multiple emergency department visits were noted in 21%, while 14% were admitted to ICU. DNR and Advanced Directive documentation was not present in 41.4% and 51.7%, respectively. Pain levels (M=4.94) were higher than goal (M=3.26) for 38%.

**Conclusions:** Findings suggest opportunities for improvements in the quality of EOL cancer care in the areas of hospice and...
The Burden of Polypharmacy in Patients with Life-Limiting Illness (S766)

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Objectives
• Gain a better understanding for practitioners and medical providers of the prescription profile patients have when approaching death.
• Help practitioners and medical providers better identify the change in the medication profile of patients with a life-limiting illness as they approach death.

Original Research Background: Patients with life-limiting illness face several challenges as they transition from curative to supportive care approaches. One of these is a predictable expansion of the portfolio of supportive care medications, increasing the risk of adverse reactions and medication non-adherence.

Research Objectives: What does the portfolio of medications look like in patients with life-limiting illness?

Methods: This was a pre-specified secondary analysis of data from a prospective trial. Eligible participants were adults with a <1-year prognosis taking a statin medication for primary or secondary prevention. Participants were enrolled from 15 sites, randomized to continue or discontinue statin medications, and followed for up to a year. Concomitant medications were recorded at least monthly. Prescribed medications were categorized according to the World Health Organization’s (WHO) ‘Guidelines for ATC Classification’ by class and sub-class. An expert panel of palliative care, oncology, geriatrics, and primary care physicians guided categorization. Descriptive statistics were calculated.

Results: On average, participants (n=245) were 74 years old (SD 12) and lived 265 days (SD 128) on study; 51% of the patients had a primary diagnosis of cancer. In total, 51 classes, 192 sub-classes and 423 different medications were prescribed. The five most commonly prescribed medications were: anti-hypertensives, broncholytics, laxatives, strong opioids, and gastric protection aids. Patients took an average of 11.5 (SD 5) medications at the time of enrollment and 10.7 (SD 5) medications at death or termination of the study. 34% of patients were on 15 or more medications at any time during the study.

Conclusions: There is a significant medication burden placed on patients with advanced illness. Though most medications were prescribed for supportive care, we found the most common subclass was anti-hypertensives.

Implications for Research, Policy, or Practice: These results highlight the need for clinicians to critically evaluate the portfolio of medications in patients with advanced illness as part of a comprehensive palliative care plan.

A Descriptive and Qualitative Examination of Patients with Hip Fracture Managed Non-Operatively: Patient Characteristics and Themes in Decision Making (S767)

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Objectives
• Understand the goals of care associated with the decision to manage hip fracture nonoperatively.
• Understand the impact of prognosis and goals of care on outcomes of non-operative hip fracture management.

Original Research Background: Hip fractures are common injuries in the elderly and have a dramatic impact on overall mortality, mobility, and quality of life. Nonoperative management (NOM) is pursued in 6-10% of patients, though (OF) is the standard of care and associated with a lower mortality. Reasons for NOM and characteristics of patients have not been previously described.

Research Objectives: The research aim is to describe patient characteristics, outcomes and themes in decision making associated with NOM of hip fracture.

Methods: Between 2009 and 2011, 42 patients with hip fractures received NOM at our academic level one trauma center. A retrospective review was performed for descriptive and qualitative analysis employing grounded theory method to categorizes the reasons for NOM.
Results: The reasons for NOM fell into two broad categories: restorative or comfort-focused goals. Wish to avoid per-operative risk was a common reason for NOM in the restorative group, while understanding of advanced disease and facing the end of one’s life was a common reason for NOM in the comfort group. Time from fracture to death was longer with restorative versus comfort goals, 77d versus 20d with 9 versus 2 patients still alive 3 years following fracture (p=.002).

Conclusions: The decision to pursue NOM of hip fracture can be divided into patients with restorative or comfort-focused goals. Mortality with NOM was better in the restorative group and most patients with comfort goals were facing the end of their lives regardless of treatment decisions.

Implications for Research, Policy, or Practice: More research is needed to understand the risk of NOM vs OF for patients with restorative goals and high operative risk, as interpretation of increased mortality of NOM is complicated by the high representation of end of life care patients with comfort goals. NOM is different for restorative vs comfort goals and more research is needed to determine optimal NOM in both these group.

Events Preceding Final Hospitalizations or Deaths and End-Of-Life Decisions in Patients on Chronic Dialysis (S768)

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Sandra Ward, PhD RN, University of Wisconsin at Madison, Madison, WI

Objectives
• Articulate understanding that acute events superimposed on chronic kidney failure often precede patient death; and that these events often occurred outside of the acute care setting.
• Verbally acknowledge the potential impact of the acute events imposed on chronic kidney disease on the apparent low rates of discussions of dialysis withdrawal at end-of-life.

Original Research Background: Healthcare intensity at end-of-life in chronic dialysis patients is high. However, the medical events leading to final hospitalizations or imminent deaths and end-of-life decisions in these patients have not been well described.

Research Objectives: This secondary data analysis describes: events preceding final hospitalization or death; decisions about life-sustaining treatment (including dialysis); and the timing of those decisions.

Methods: Data were from 37 patients (mean age = 66 years, African Americans = 48.6%) who died during their participation in an ongoing multi-center RCT of an end-of-life communication intervention (NCT01259011). Information about final hospitalization or death was extracted from post-death surrogate interviews and medical records.

Results: The median number of days from event to death was 5. The top 3 events preceding final hospitalization or death were: infection (11, 29.7%); exacerbation of CHF or COPD (7, 18.9%); and GI bleed (7, 18.9%). Nearly half (48.6%) experienced events at home, requiring their surrogates or other family members to manage them. Twenty-six (70.3%) were transferred to ED; 28 (75.7%) were hospitalized; and 16 (43.2%) were admitted to an ICU. Of those 16, 15 died in the ICU, with 12 having mechanical ventilation and CPR withheld or withdrawn 1 or 2 days before death. Dialysis withdrawal was documented in the medical record or mentioned by the surrogate for 15 of the total 37 patients, but only 5 of the 16 ICU patients. Ten (27%) died at home or in a hospice unit, and 26 (70.3%) died in a hospital or other care facility.

Conclusions: Acute events superimposed on kidney failure generally preceded patients’ deaths. Furthermore, these events often occurred outside of an acute care setting. Dialysis withdrawal did not appear to be clearly discussed with patients at end-of-life.

Implications for Research, Policy, or Practice: The findings may be useful for advance care planning with dialysis patients and their surrogates.

Facebook as a Resource for Caregivers of Hospice Patients (S769)

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Objectives
• Recognize the various forms of caregiver support on Facebook.
• Determine the difference between Facebook pages and groups as a source for caregiver support.
• Describe the difference between national and international Facebook pages/groups in regard to caregiver support.

Original Research Background: Facebook is currently one of the most popular forms of social media. It has provided users with a
means of expanding communication and disseminating information globally. Caregivers of hospice patients who are overwhelmed and in need of support may be reaching out to others via Facebook. However, their characteristics, types of usage and potential benefits have not yet been explored.

**Research Objectives:** To compare between pages and groups on Facebook as a source for caregiver support. To compare the utilization of Facebook by caregivers on a national versus international basis.

**Methods:** Using search terms such as “caregiver,” “hospice,” and “end-of-life,” 1-year information was collected from pages/groups as it pertained to number of likes/members, comments and target audience. Caregiver support was defined using eight different categories, including social support, caregiver tips/skills, inspirational quotes/pictures, awareness, news/research, fundraising, radio/internet events, and in-person events.

**Results:** 336 pages versus 136 groups. Pages were more likely to have social support, caregiver tips/skills, inspirational quotes/pictures, advocacy, news/research, radio/internet events, and in-person events (all with p<0.01). There was no significant difference in fundraising between pages and groups (p=0.1651). For U.S. versus international pages/groups, U.S. pages/groups were more likely to provide caregiver tips/skills (p<0.0001), inspirational quotes/pictures (p=0.008), news/research (p=0.0259). International pages were more likely to have fundraising (p=0.0374) and in-person events (p=0.0279).

**Conclusions:** Pages were more prevalent than groups on the subject of caregivers and were more likely to provide different tools for caregiver support. Nationally, there appears to be more emphasis on caregiver skills, inspirational quotes/pictures, and news/research. Internationally, there are more fundraising and in-person events.

**Implications for Research, Policy, or Practice:** Facebook is an ever-changing social media tool. Knowing how it is currently being utilized by caregivers enables clinicians and health organizations to potentially provide further education and support using social media.

### The Last 8 Weeks of Life: Family Caregiver Distress and Patient Symptoms (S770)

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**Objectives**
- Describe the objective of the study and methods used.
- Describe two results of the study and the implications for practice of each.

**Original Research Background:** Family caregivers manage patient symptoms while simultaneously experiencing their own distress and symptoms.

**Research Objectives:** To describe family caregiver (FC) perception of patient symptoms during the last 8 weeks of life in home hospice care and the relationship of PT symptom severity to FC distress.

**Methods:** Cancer family caregivers (FC) (n=109) and patients (PT) were monitored using an automated telephone symptom monitoring system as controls in a larger clinical trial. FCs called the monitoring system daily reporting by proxy past 24 hour presence, severity and FC distress on 11 common PT EOL symptoms using a 0–10 scale. FCs also reported their own fatigue, sleep, mood, and anxiety symptom severity (0-10 scale). Eight weeks pre-death to death call data from the 1503 calls were analyzed. The call compliance was 60% of expected days.

**Results:** Most of the PTs were White (94%), mean age of 72 with 52% males. Most of the FCs were White (95%), mean age of 60 and 66% were female. The majority of FCs were Spouses (59%), 32% were Adult Children and 9% were another relationship. The most frequently reported PT symptoms were Fatigue (70%), Pain (64%), Appetite Change (54%), Anxiety (54%), Appetite Change (54%), Anxiety (54%), and Change in Thinking (38%). While symptom trajectories varied over the 8 weeks, all symptoms escalated in the last week of life. Mixed modeling was used to examine the relationship of patient symptom severity with caregiver’s perceived distress. All patient symptoms were highly related to caregiver distress (all p-values <.001). Mood of the FCs was predictive of PT symptom severity.

**Conclusions:** In addition to monitoring patient symptoms at end of life, managing family caregiver distress and symptoms could improve wellbeing for both patients and caregivers.

**Implications for Research, Policy, or Practice:** Future research should examine the dyad of patient and caregiver physical and emotional symptom trajectories. Treating caregiver symptoms may improve the Hospice experience.

### An Integrative Literature Review of End of Life in African American Older Adults (S771)

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**Objectives**

- Discuss common research findings in end-of-life decision making among African American older adults.
- Identify key factors that may influence end-of-life decisions in this population.

**Systemic Review Background:** End-of-life care in the United States is described as deficient and fragmented. Minority populations engage in end-of-life planning less frequently than Caucasians. African Americans represent the second largest minority group. The Patient-Self Determination Act requires Medicare and Medicaid funded healthcare organizations to empower patients to refuse or accept medical care and execute advance directives. The Study to Understand Prognoses and Preferences for Outcomes and Risks of Treatments confirmed substantial shortcomings of healthcare for seriously ill patients near the end of life. From this came the Institute of Medicine’s report Approaching Death: Improving Care at the End of Life, which further demonstrated the need for evidence-based end-of-life care models.

**Aims:** The purpose of this presentation is to provide an overview of current empirical evidence on end-of-life decision making among African American older adults.

**Methods/Session Descriptions:** Literature searches were conducted using the following databases: CINAHL, Cochrane Library, Ovid MEDLINE, Pub Med, Psych Info, Web of Science and ancestry searches. Keywords used were: African American, Blacks, end of life and older adults. Articles searched were published between 2007 and 2014. Studies were included based on the following criteria: (a) included African Americans, (b) participants were 60 years of age or older, (c) the issue of end of life was addressed, (d) research-based, and (e) published in the English language. Twenty-eight articles met these criteria.

**Conclusion:** African Americans use hospice and prepare advanced directives less often as compared to Caucasians or other races. Multiple factors contribute to these decisions with the following considered most salient: (1) individual and familial belief systems, (2) culture and socialization, (3) religion/spirituality, and (4) past events in history that have led to mistrust of the United States healthcare system. Further research is needed in older adults with cognitive impairment using their family caregivers. This can lead to the development of culturally tailored interventions for patients and families to improve this healthcare outcome.

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**Surgical Interventions and Outcomes for Children with Trisomy 13 and 18: A Population-Based Study (S772)**

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**Objectives**

- Know interventional outcomes for a population-based cohort of children with trisomy 13 and trisomy 18 in Ontario.
- Learn about the association between interventions and survival in this Ontario population of children with trisomy 13.

**Original Research Background:** Trisomy 13 and 18 (T13 and T18) are common chromosomal anomalies associated with problems in multiple organ systems. Many children with T13 and T18 die soon after birth, although some can live much longer. Debate exists in the literature about the appropriateness of surgeries in children with T13 and T18 because of their typically shortened lifespans. Little is known about outcomes associated with interventions in this population.

**Research Objectives:** 1) To describe use of interventions in a population-based cohort of children with T13 and T18 over a 20-year period; 2) To evaluate the association between interventions and survival.

**Methods:** Using linked Ontario health administrative databases that capture all hospitalizations in the single-payer healthcare system, we created a retrospective cohort of children born between April 1, 1991 and March 31, 2012 with a diagnosis code for T13 or T18 on a discharge record. Demographic data and procedure codes were extracted from hospitalization discharges through March 31, 2013. Survival times were calculated from listed birth and death dates; patients without death dates were censored at the most recent hospital discharge date.

**Results:** The trisomy 13 cohort included 195 individuals; 161 (82.6%) died during follow-up. Of the 268 children with trisomy 18, 232 (86.6%) died. Median ages at death were 7 days and 5.5 days, respectively; the oldest children in the cohorts were 17 years in trisomy 13 and 15 years in trisomy 18. 80 children with trisomy 13 and 100 children with trisomy 18 received a total of 2141 procedures. Interventions per year increased over time from 10 in 1991 to 58 in 2012. Details about specific procedure types and association with survival will be forthcoming.

**Conclusions:** Children with T13 and T18 in Ontario are receiving increasing numbers of interventions over time.

**Implications:** Interventional outcomes will help guide family and clinician decision-making for care of children with T13 and T18.
Clinician Perspectives on Preparing for and Conducting Family Meetings (S773)

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Objectives
• Identify challenges to care team preparation for family meetings.
• Identify strategies to facilitate care team preparation for family meetings.

Original Research Background: While existing tools and frameworks provide guidance in improving communication during family meetings, few studies explore clinician perspectives on preparation.

Research Objectives: To identify challenges that clinicians have in planning for family meetings.

Methods: 4 discipline specific focus groups were conducted with a range of clinicians from various in-patient units at The Children’s Hospital of Philadelphia to explore their experiences with participating in family meetings. Clinicians were asked about challenges faced when conducting family meetings and what information would be helpful to receive from families in preparation for meetings. Focus groups were audio recorded and transcribed. Transcripts were analyzed using thematic analysis using grounded theory.

Results: Our sample included 7 pediatric attendings, 3 residents, 9 nurses, and 11 social workers. Key themes include: 1) Identifying who should be present in meetings: “I think sometimes we make assumptions or don’t think through who needs to be there to hear the information”; 2) Determining team lead and presenting a unified agenda, 3) Desire to know parents’ goals and expectations of family meetings: “Trying to meet the family where they are, I guess, is always a challenge that we’re trying to meet”; 4) Addressing gap in parental understanding: “I often think families are kind of like deer in the headlights. They have no idea what they should be asking, or what other solutions, options they actually have;” 5) Fear that preparation may lead to antagonistic relationships with families, 6) Difficulty with responding to family emotions during meetings.

Conclusions: Clinicians value preparation, but face challenges that impede their ability to have successful family meetings. Resources and training that facilitate clinician ability to prepare may lead to more successful meetings.

Implications for Research, Policy, or Practice: Improving clinician ability to conduct family meetings may lead to improved practice, better communication, and higher patient-family satisfaction with care.

Triggering Advance Care Planning Conversations in Oncology and Identifying Barriers to These Discussions (S774)

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Objectives
• Identify the known barriers and facilitators to conducting advance care planning conversations in the clinical setting.
• Understand how implementing a trigger system can promote early advance care planning conversations for patients with serious illnesses.
• Describe barriers to advance care planning as elucidated in our study.

Original Research Background: Seriously ill patients benefit from early discussions about end-of-life care values and goals, yet such conversations often begin too late. Facilitators and barriers to earlier advance care planning conversations need to be identified.

Research Objectives: To determine the effectiveness of a “trigger” that reminds oncologists to complete ACP discussions with outpatients whom they expect might die within a year; to prospectively evaluate clinician-identified barriers to these conversations.

Methods: As part of a cluster-randomized trial, oncology clinicians identified their patients at high risk of death within a year. Intervention-arm clinicians were trained to use the Serious Illness Conversation Guide (SICG). Immediately before high-risk patients made outpatient visits, intervention-arm clinicians were triggered by email to conduct a SICG conversation. Clinicians who deferred conversations reported on their reasons.

Results: 88 oncology clinicians identified 1,743 patients for whom they would not be surprised about death within a year. Preliminary data: 332 patients enrolled; 104 patients and 40 clinicians in the intervention arm; 124 visits triggered, resulting in 62 completed conversations. 79% of the conversations occurred after 1 trigger; 92% by the 2nd trigger. Of the 62 triggered visits that did not result in a conversation, clinicians identified the following reasons: 26% not enough time; 20% attitudes about the impact and timing of such conversations (i.e., they take away hope, patient not sick enough); 46% immediate patient issues making conversation inappropriate (i.e., acutely ill, anxious, or depressed); 8% other.
Conclusions: An email trigger in the oncology clinic effectively promotes ACP conversations. Most clinician-identified barriers to such triggered discussions reflect beliefs about the impact and timing of the discussion and concerns about the patient’s immediate condition; time constraints only account for a quarter of delays.

Implications for Research, Policy, or Practice: A trigger system may promote early advance care planning for outpatients with serious illnesses. Time pressure was not the major barrier to such discussions.

Early Referrals: An Ideal Goal for Both Patient and Hospital (S775)
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Objectives
• Recognize the patient characteristics associated with patients receiving an early palliative care referral.
• Identify potential benefits to patients outcomes associated with receiving an early palliative care referral.

Original Research Background: A goal of palliative care (PC) is to move upstream in the course of illness and during hospitalization. Early consultation can resolve symptoms and address key decisions more quickly.

Research Objectives: Identify patient characteristics associated with early referrals to hospital PCS and the effects on patient outcomes.

Methods: Eight PC-team members of the Palliative Care Quality Network (PCQN) entered data into the PCQN database from January 2013 to May 2014 resulting in 3,157 patient records. The 23-item PCQN dataset includes demographics, date of consult request, and symptoms. We then compared patient characteristics and outcomes to early (1-day after admission) and late referrals.

Results: Overall, 40% of referrals were early (n=1258). Early referrals were older (74 vs 70 years, p=0.0001) and more likely to be DNR/DNI (48% vs 40%). There was no association between early referral and diagnosis (p=0.3): cancer (41% early), neurologic (37%), pulmonary (37%), and cardiovascular (36%) disease. Fewer patients (p=0.0001) in ICUs received an early referral (29%) compared to telemetry/step-down (42%), and medical/surgical (39%) units. Palliative performance scale scores were similar for those with early and late consultations (mean 34 vs 32, p=0.2). More early referrals were discharged alive (75% vs 71%, p=0.01) and referred to hospice (52% vs 46%, p=0.02). Early referrals had a shorter length of stay (LOS) after referral (mean 4.8 vs 6.3 days, p=0.02).

Conclusions: Almost half of patients seen by the PCQN members are referred to PC early in their hospitalization. While patients referred early were older, just as sick and more likely to be DNR/DNI than those receiving a later referral, they were more likely to be discharged alive and to hospice.

Implications for Research, Policy, or Practice: Triggers for PC consultation could increase the number of patients who receive PC consults early in a hospitalization. Such strategies may increase discharge rates and hospice referrals and shorten LOS.

No Easy Task: A Mixed Methods Study of Barriers to Conducting Effective End-Of-Life Conversations Reported by Multi-Specialty Doctors (S776)
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Objectives
• Gain an initial understanding of the current state and the gap between patients’ desire to discuss end-of-life issues with their doctors who are often reluctant to do so.
• Identify the top six barriers to conducting effective end-of-life conversations with diverse patients and families.
• Gain an initial understanding of the how the clinician’s age, ethnicity, gender and sub-specialty may impact the care they provide.

Original Research Background: Though most patients wish to discuss end-of-life (EOL) issues, doctors are reluctant to conduct EOL conversations.

Research Objectives: To identify barriers doctors face (if any) in conducting EOL conversations with diverse patients and to determine if the doctors’ age, gender, ethnicity and sub-specialty influenced the barriers reported.

Methods: Mixed methods study of doctors caring for diverse, seriously ill patients in two large academic medical centers at the
end of the training.

**Results:** 1,040 of 1,234 potential subjects (84.3%) participated. 29 participants were designated as the development cohort for qualitative analyses using grounded theory methods to identify primary barriers. Codes were validated by analyzing responses from 50 randomly drawn subjects from the validation cohort (n=996 doctors). Only 0.01% doctors denied barriers to conducting EOL conversations with patients. 99.99% doctors reported barriers with 85.7% finding it very challenging to conduct EOL conversations, especially with patients whose ethnicity was different from their own. Asian-American doctors reported the most struggles (91.3%), followed by African-Americans (85.3%), Caucasians (83.5%) and Hispanic-Americans (79.3%). Barriers included language/medical interpretation issues, patient/family religio-spiritual beliefs, doctors’ ignorance of patients’ cultural values, patient/family’s cultural differences in truth handling and decision making, limited health literacy, patients’ mistrust of doctors. Doctors’ ethnicity (Chi-Square=12.77, DF=4, p=0.0125) and medical subspecialty (Chi-Square=19.33, DF=10, p=0.036) influenced their reported barriers. Friedman’s test used to examine ranking of the barriers across sub-groups identified significant differences by age (F statistic=303.5, DF=5, p<0.0001) and medical sub-specialty (F statistic=163.7, DF=5, p<0.0001).

**Conclusions:** Doctors struggle with conducting effective EOL conversations, especially with patients whose ethnicity is different from theirs.

**Implications for Research, Policy, or Practice:** Culturally competent care is imperative if we want to better serve diverse patients/families. Cultural competence training is vital for all clinicians caring for diverse patients.

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**The Value of Advance Directives in an Oncologic ICU (S777)**

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**Objectives**

- Describe the concept of value-based critical care.
- Identify the effect of advance care planning in an oncologic critical care population.

**Original Research Background:** Findings from previous research on the effect of advance directives (ADs) on patient outcomes and on value-based care have been mixed and are limited in the oncology population. A palliative care project in our Cancer Center’s ICU revealed patients with long length of stay (LOS) and ICU death without ADs in place.

**Research Objectives:** We sought to determine the presence and effect of ADs on end-of-life cost of care (COC) and LOS in critical care patients at our Cancer Center.

**Methods:** We compared the 2013 COC and LOS of all ICU patients to the subset of patients for whom ICU care proved futile. The presence of ADs and DNR orders for expired ICU patients were matched to their respective COC and LOS. The COC of floor and ICU care were compared to determine potential cost savings from ICU avoidance.

**Results:** Floor care proved to cost on average $2,000 less per day than ICU care. Thirty-eight percent of ICU patients had ADs. Only 41% of patients who expired in the ICU had an AD. If an AD was present, it was most likely to be a Living Will (LW) with DNR. The daily COC was highest for patients without ADs and lowest for those with LWs with DNR, despite a longer LOS in the LW/DNR group.

**Conclusions:** Obtaining timely ADs with DNR is likely to result in the lowest daily COC for critical patients. The greatest savings is likely to result from early ACP and ICU avoidance.

**Implications for Research, Policy, or Practice:** Further study is needed to understand and overcome barriers to timely ACP implementation.

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**Adoption of NCCN Palliative Care Guidelines by NCCN Institutions (S778)**

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**Objectives**

- Describe a process for gauging implementation of the National Comprehensive Cancer Network’s Palliative Care Guidelines by its member institutions.
- Identify the impediments to NCCN Palliative Care Guideline adoption by member institutions.

**Original Research Background:** To promote access and delivery of quality, evidence-based palliative care (PC), the National Comprehensive Cancer Network (NCCN) has developed PC guidelines to guide symptom screening, assessment, PC
interventions, and reassessment by the oncology team.

**Research Objectives:** We sought to evaluate adoption of the guidelines among NCCN member institutions.

**Methods:** An invitation and reminders to participate in an online survey were sent to NCCN PC guidelines panel members. If a panel member did not reply, individuals at the same institution were approached.

**Results:** Responses were received from 21 (84%) of the 25 member institutions. All of the institutions report having an interdisciplinary team with PC expertise. Forty-three percent have guidelines or triggers in place for the use of PC services. Only 10% actively employ the NCCN guidelines to screen for PC needs or make PC referrals; the guidelines are more often used to guide patient assessment (38%) and clinical practice (43%). When asked to endorse other PC referral criteria, 76% indicated the discretion of the oncology provider(s) and 29% the National Consensus Project for Quality Palliative Care. Sixty-two percent agree providers concur on the elements of PC and 43% agree PC referrals occur in a timely and efficient manner. The most frequently cited barriers to the provision of quality PC are attitudes toward PC (71%), insufficient staffing (61%) and limited financial resources (57%).

**Conclusions:** Adoption of the guidelines at NCCN member institutions is incomplete. There appears to be a lack of consensus about when and for whom PC should be provided.

**Implications for Research, Policy, or Practice:** Future research should be designed to enhance understanding of the barriers to care and improve implementation of the guidelines.

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**Demonstrating Medical Student Competency in Palliative Care: Development and Evaluation of a new “OSCE” Station (S779)**

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**Objectives**

- Achieve an understanding of how to develop an OSCE station to assess palliative care competencies.
- Achieve an understanding of how to evaluate palliative care competencies in a medical student population.

**Original Research Background:** Primary palliative care skills are important for most physicians but an authentic assessment tool using standardized patients (SP) has not been reported for medical students.

**Research Objectives:** To develop, implement, and assess the characteristics of a palliative care observed structured clinical examination (OSCE) for 4th year medical students.

**Methods:** Incorporating palliative care and education expert input, we created a representative case and a checklist of 16 history questions in five domains. In its second year, based on review of the first year analysis and further expert input, we revised the checklist to 14 history items in three palliative care domains. We also trained a new SP with an acting background because of the emotional toll on the first SP. Each rising 4th year medical student (100) completed this case and 7 others in a single day as part of a required evaluation. We performed standard item analyses on the history items and determined inter-rater reliability.

**Results:** One hundred students scored an average of 75% (sd 13) on the 14 history items up from 64% (sd 12) on 16 items the previous year. There was 95% (from 94%) agreement in ratings on the history items between the SP and a remote observer. Of note, the students performed better on the MIRS communication skills questions on the palliative care case than on any other case. The students reported that the case seemed authentic.

**Conclusions:** A palliative care OSCE is feasible to implement with high inter-rater reliability. Using a professional actor as the standardized patient improves the implementation for this emotionally demanding case. Analysis of the OSCE’s performance demonstrates successful aspects in assessing student competencies in primary palliative care.

**Implications for Research, Policy, or Practice:** A newly created and evaluated OSCE may be appropriate to use to assess primary palliative care competencies of medical students.

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**Knowledge and Attitude Towards Organ Donation in Muslim Patients and Their Families in Hospice Care: a Pakistani Perspective (S780)**

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**Objectives**
• Discuss the impact of religious and cultural factors on reluctance to organ donation in hospice patients and their families.
• Recognize the lack of discussions about organ donations between hospice staff and the hospice patients or their families.

Original Research Background: Organ donation occurs infrequently within palliative care. Cultural and religious beliefs may have a major impact on willingness to organ donation in hospice care.

Research Objectives: To (1) Assess knowledge of hospice patients and their families about organ donation (2) Factors associated with willingness or reluctance to donation (3) Survey the discussion of organ donation between patients with the hospice staff.

Methods: Cross-sectional questionnaire survey of hospice care patients and their families. 154 patients or their families in a tertiary care hospital completed the questionnaire.

Results: 78% (120/154) of patients (or the families) were aware of some form of organ donation but only 14.9% (23/154) thought that they were fit enough for some kind of organ donation and only one family was willing for corneal donation. Factors associated with such high level of reluctance were family perception that donation would add to misery of the patient, religion, lack of awareness of importance of donation, and culture-specific factors. The most common factors were religion and perception of adding misery to the dying patient. Only 11% (17/154) said that they had a discussion about organ donation with a hospice care staff.

Conclusions: Hospice care itself is premature in low income countries, so knowledge and understanding about organ donation is even scarcer. Despite the majority opinion of Muslim jurists that organ donation is permitted in Sharia, surveys indicate continuing resistance by lay Muslims. The first step towards a better future would be better education of hospice staff regarding organ donation and Islam so that they disseminate the knowledge to their patients with better understanding. Allaying the anxiety of adding misery to the dying patient is also the responsibility of hospice staff by making the patients and families aware of a better donor care.

A Retrospective Review of Urine Drug Screen (UDS) Findings in an Outpatient Palliative Care Clinic (S781)

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Objectives

• Identify active substance abuse as an issue complicating the pain management of many patients with cancer.
• Recognize the potential role of UDS in managing patients with cancer.

Original Research Background: The high incidence of polypharmacy, chemical coping, opioid diversion, and underlying psychosocial concerns in cancer patients necessitates a comprehensive assessment in order to ensure safe opioid prescribing in the palliative setting. An adaptation of universal precautions that were initially developed for patients with non-cancer pain has been proposed for patients with cancer. These include assessments of substance abuse risk, monitoring of aberrant behavior, and screening/symptom assessment instruments.

Research Objectives: 1) Characterize the patients with abnormal UDS in a palliative care clinic; 2) Describe the use of unprescribed opioids and illicit drugs in a palliative care clinic.

Methods: A retrospective review of 232 consecutive palliative clinic patients at a NCI center over an 18-month period, including 80 patients who had at least 1 UDS. Edmonton symptom assessment scores, personal history of substance use, history of aberrant behavior, and current opioid requirements measured as a morphine equivalent daily dose (MEDD) were obtained. UDS results, referral, and return to clinic information were collected.

Results: 34% (n=80) of patients had at least one UDS. 73% (n=58) had an abnormal UDS. 29/80 had an inappropriately negative UDS, showing none of their prescribed opioids. 16/29 of these patients had active cancer while 13 no longer had evidence of cancer. 47/80 were positive for an unprescribed opioid, benzodiazepine, or illicit substance. 10/47 patients with abnormal UDS had only cannabis metabolites in their urine. All others (37/47) had unprescribed opioids, benzodiazepines, cocaine, or heroin with 19 patients demonstrating polysubstance abnormalities.

Conclusions: UDS on patients with cancer who demonstrated higher risk characteristics were frequently positive for non-prescribed opioids or potent illicit drugs such as heroin or cocaine. 36% of those tested, had inappropriately negative UDS, raising concerns for diversion.

Implications for Research, Policy, or Practice: The impact of the UDS on palliative clinical practice warrants further research especially during a time of prescription opioid abuse in an especially vulnerable population.

An Examination of Patterns of End-of-Life Care Use among HIV Patients at a Safety Net
Hospital (S782)
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Objectives
• Gain understanding of end-of-life care among HIV patients who receive their care at a safety net hospital.
• Examine predictors of hospice use among HIV patients who receive their care at a safety net hospital.

Original Research Background: Though highly active anti-retroviral therapy (HAART) has improved survival among many HIV patients, there are still those with advanced illness who may benefit from palliative care for pain/symptom management and hospice care at the end of life—particularly those with limited access to care.

Research Objectives: To examine patterns of end-of-life (EOL) care (completion of advance directives [AD], use of palliative care, and hospice) among HIV patients who receive care at a local safety net hospital.

Methods: A secondary analysis of clinical data obtained from the electronic medical records of HIV patients admitted to a large, urban hospital from January 2010 to December 2010 was conducted. A multivariable logistic regression analysis was done to examine characteristic of patients who received hospice services.

Results: We identified 367 HIV patients admitted to the hospital for 2010. The mean age was 42 years, 57% were black, and 24% were Hispanic. Only 14% had documentation of an AIDS-defining illness, and 9% had never taken HAART. Since the time of study initiation, 28% have died; however, only 6% received palliative care, and 6% received hospice. Those who received hospice had received a palliative care consult (AOR: 7.38, 95% CI: 2.12, 25.69), had an AD (AOR: 8.71, 95% CI: 2.78, 27.27), and had lower albumin levels (AOR: 3.17, 95% CI: 1.08, 9.32). Of those patients who received hospice, the mean time to death after hospice enrollment was 11 days.

Conclusions: Despite advancements in the treatment of HIV and difficulties with prognostication, those with advanced illness may benefit from palliative care for management of symptoms and hospice for care at the end of life. Advances should be made in identifying those in need of palliative or hospice care earlier in their disease trajectories.

Implications for Research, Policy, or Practice: Continued research should examine palliative care and hospice use among HIV patients with limited access to care.

Creation and Validation of a Computerized Algorithm to Identify Breast and Lung Cancer Patients at the End of Life (S783)
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Objectives
• Examine the use of the electronic health record in palliative and end-of-life care.
• Examine the characteristics of patients identified by the algorithm described above.

Original Research Background: Physicians often have difficulty with prognostication and identification of patients who are in need of counseling about options for care at the end of life.

Research Objectives: To create and validate a computerized algorithm that will identify breast and lung cancer patients most in need of counseling about end-of-life care options, including advance care planning, palliative care, and hospice.

Methods: Clinical and non-clinical data were extracted from the electronic medical record of breast and lung cancer patients admitted to a large, urban hospital from January 2010 to December 2010. These data were used to create an electronic (e-EOL) algorithm designed to identify advanced breast and lung cancer patients that could benefit from in-depth discussion about EOL care options using national guidelines.

Results: We identified 387 patients who had ICD-9 Codes indicative of breast or lung cancer for the year 2010. Of those identified, 39% had breast cancer and 58% had lung cancer. Only 3% of those identified by the algorithm were found to have an error in ICD9 coding, and were determined on chart review not to have a diagnosis of breast or lung cancer. The e-EOL algorithm identified 54 (14%) patients that met assigned criteria (presence of metastatic disease and albumin M2.5 g/dl), while physician chart abstractors felt that 64% of patients met criteria indicating a need for in-depth discussion about EOL care options. The sensitivity, specificity, and positive predictive value of the first generation algorithm were as follows: 20%, 96%, and 90% respectively.

Conclusions: Initial testing of the e-EOL algorithm appears to be promising. Other markers of advanced illness will be added to refine the algorithm and improve its test operating characteristics.

Implications for Research, Policy, or Practice: The electronic health record and health information technology can and should be used to advance the cause of providing quality palliative and end-of-life care.
Whose Role? Oncology Practitioners’ Perceptions of Their Role in Providing Spiritual Care to Advanced Cancer Patients (S784)

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Objectives
- List the elements of spiritual care that practitioners should provide in end of life settings.
- Describe the differences between physicians and nurses regarding provision of spiritual care in their professional role.
- Evaluate their attitudes regarding provision of spiritual care by them and other health professionals.

Original Research Background: Patient spirituality is frequently a critical component of wellbeing in the context of illness, particularly for those with advanced disease. The Religion and Spirituality in Cancer Care study is a multisite study investigating the perspectives of nurses and physicians caring for patients with advanced cancer regarding spiritual care (SC).

Research Objectives: To determine how oncology nurses and physicians view their role in providing SC, factors influencing this perception, and how this belief affects SC provision.

Methods: This is a survey-based, multisite study conducted from October 2008 to January 2009. All oncology physicians and nurses caring for advanced cancer patients at four Boston, MA cancer centers were invited to participate; 339 participated (response rate=63%).

Results: Nurses were more likely than physicians to report that it is the role of medical practitioners to provide SC, including for doctors (69% vs 49%, p<0.001), nurses (73% vs 49%, p<0.001), and social workers (81% vs 63%, p=0.001). Amongst nurses, older age was the only variable that was predictive of this belief (AOR 1.08; 1.01-1.16, p=0.02). For nurses, role perception was not related to actual SC provision to patients. In contrast, physicians’ role perceptions were influenced by their religiosity (AOR, 0.31; 95% CI, 0.11-0.90; p=0.03) and spirituality (AOR, 6.41; 95% CI, 2.31-17.73, p<0.001). Furthermore, physicians who perceive themselves as having a role in SC provision reported greater SC provision to their last advanced cancer patients seen in clinic, 69% compared to 31%, p<0.001.

Conclusions: Nurses are more likely than physicians to perceive medical practitioners as having a role in SC provision. Physicians’ perceptions of their role in SC provision are influenced by their religious/spiritual characteristics, and are predictive of actual SC provision to patients.

Implications for Research, Policy, or Practice: Spiritual care training should target improved understanding of clinicians’ appropriate role in SC provision to seriously ill patients.

Use of an Admission Trigger Tool for Patients with Cancer: Impact on Access to Palliative Care Services (S785)

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Objectives
- Identify the impact of an admission trigger tool on referral patterns to Palliative Care for adult cancer patients.
- Discuss the implications of trigger tools on improving care and lowering cost for patients with unmet Palliative Care needs while educating primary physicians on appropriate timing and scope of palliative interventions.

Original Research Background: In our 427-bed urban community hospital, we run a Palliative Medicine Fellowship and a consult service that completes over 1,000 consults annually. Many diverse underserved cancer patients with unmet Palliative Care needs or unestablished goals of care are not referred to the Palliative Care service during admissions.

Research Objectives: (1) Measure the number of Palliative Care referrals generated by an admission trigger tool for patients with a known diagnosis of cancer that are admitted;

(2) Compare the characteristics and outcomes of cancer patients for which the admitting physician did or did not complete the trigger tool and referred or did not refer to Palliative Care.

Methods: We implemented an admission trigger tool in our EHR for any adult patient with a known cancer diagnosis and tracked referrals generated by the tool. We also completed chart reviews on those patients where the tool was not completed or did not lead to a palliative referral. These reviews included direct interviews with admitting physicians.
Results: n=320 in 6 months. 106 completed trigger tools (33%). Of those, 34 PC consults requested and 72 not requested. 214 bypassed the trigger tool. Of those 214, 39% had a palliative consult requested. Chart reviews and interviews demonstrate time, knowledge deficiency, and physician EHR “pop-up” fatigue as contributing factors to not completing or not referring.

Conclusions: Initial implementation of an admission trigger tool for patients with cancer did not lead to a significant increase in referrals to Palliative Care. Data collection continues after ongoing education regarding the use of trigger tools and need for timely palliative care involvement on appropriate patients along with improvement of implementation process.

Implications for Research, Policy, or Practice: Hospital-based Palliative Care Consult services improve quality and lower cost. Trigger tools to increase access for inpatients must be accompanied by institution-wide education efforts and regard for feasibility of completion.

Trajectories of Patient Well-Being During Chronic Illness and End Of Life (S786)
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Objectives
- Identify common trajectories of patient well-being during serious illness and end of life.
- Develop evidence-based early intervention plans when patient needs are present early in the disease course.

Original Research Background: Although palliative care includes patients across the spectrum from serious illness to end-of-life, little data describe patterns of experience over time and whether bio-psychosocial needs differ between stages of advanced illness.

Research Objectives: Describe trajectories of patient experience during serious illness as compared with end-of-life testing whether: (1) well-being changes over time, and (2) experience differs between periods.

Methods: Data from a prospective observational study of 210 community-dwelling patients living with advanced cancer, congestive heart failure, or chronic obstructive pulmonary disease included monthly interviews.

Measure: the FACT-G scale assessing physical, functional, social, and emotional well-being. Participants were coded as end of life (n=86 observed during last year of life and died during study) and serious illness (n=96 observed for one year, at least 18 months prior to end of life). We used individual level growth curves to model random effects for individual well-being parameters over time and fixed effects of illness stage.

Results: Levels of physical, social, and emotional well-being were similar for serious illness and end-of-life patients, and relatively stable over 12 months. Functional well-being declined over one year, more quickly for patients observed during the last year of life than for patients observed during serious illness. In most cases, patients sort into high and low levels of need that persist over time.

Conclusions: High and low levels of physical, social, and emotional functional needs appear early in illness and persist. Functional well-being declines over time, especially during the last year of life.

Implications for Research, Policy, or Practice: Patient needs are based more on individual experience than stage of illness. Patients’ supportive service needs (low levels of well-being) will be expressed during serious illness and should be screened early in the context of palliative care.

Experience is the Teacher of All Things: Educational Outcomes of Home Hospice Visits (S787)
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Objectives
- Identify gaps in residency hospice education and advantages to training in a home hospice setting.
- Portray the impact of a home hospice visit on residents’ ability to describe and recommend hospice, as measured by an Objective Structured Clinical Examination (OSCE).

Original Research Background: The ability to recommend hospice to patients with less than a 6-month prognosis is an essential generalist palliative care competency. Evidence suggests that home hospice visits improve residents’ attitudes about hospice, but there is no data regarding whether an experiential hospice curriculum improves patient-doctor communication about hospice.

POSTER ABSTRACTS
**Research Objectives:** To measure the effect of a mentored home hospice visit on internal medicine residents’ ability to effectively describe and recommend hospice to an appropriate patient.

**Methods:** Residents during their geriatric rotation were randomized to standard rotation curriculum (n=12) or standard curriculum plus a half-day of supervised home visits with a hospice team (n=11). All residents completed an Objective Structured Clinical Examination (OSCE) at the end of the rotation that measured the ability to effectively discuss prognosis and recommend hospice.

**Results:** Residents were competent in patient-centered communication skills including exploring patients’ goals and values (100%) and exploring patients’ understanding of their illnesses (96%). Most residents also described hospice’s focus on quality of life (100%) and its concordance with the goal of not going to the hospital (96%). Compared to communicating the overall goals of hospice, residents had more difficulty describing the specifics of hospice such as the need for a primary caregiver (26%) and hospice’s provision of bereavement support (9%). Overall, few residents stated a recommendation for hospice (48%); however, of those who did, 64% experienced a home hospice visit and 36% did not. Additionally, the only residents to describe bereavement support participated in the home hospice experience.

**Conclusions:** Preliminary analysis suggests a trend towards a significant increase in recommending hospice and describing the provision of bereavement care among residents who participated in the hospice home visit experience.

**Implications for Research, Policy, or Practice:** Home hospice visits may be a high value educational activity for residents.

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**An Intervention to Improve Knowledge of Care Options and Self-Management Among Women with Breast Cancer (S788)**

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**Objectives**

- Define self-management and its relationship to palliative care.
- Identify four aspects of self-management for which the MCC intervention was efficacious.
- Describe three ways that MCC facilitated self-management among participants, family caregivers, and clinicians.

**Original Research Background:** Self-management is individuals’ engagement in the activities of managing their healthcare. Women with breast cancer want to self-manage, but may be hindered by limited knowledge of the care options of curative, palliative, and hospice care.

**Research Objectives:** We tested the feasibility of a self-management intervention, Managing Cancer Care: A Personal Guide (MCC), to improve various aspects of self-management, including knowledge of care options.

**Methods:** In this one-group, pre-post-test study, we recruited women with Stage I-III breast cancer (n=110) from a cancer center and gave them MCC. MCC topics include care options, self-management, managing transitions, communication with family and clinicians, uncertainty/empowerment, and symptom management. At two months, we measured knowledge of care options, self-management, transitions management, communication skills, self-efficacy, anxiety, depression, and uncertainty, and conducted exit interviews. We calculated descriptive statistics and used paired t-tests to examine pre-post changes.

**Results:** Participants were mostly White (78.2%) and married (61.8%), with a mean age of 52.4 years (SD=10.7; range 27-74). Twenty-three (21%) had Stage I, 60 (54.5%) Stage II, and 27 (24.5%) Stage III disease. One hundred and five (95%) completed the intervention. Knowledge of care options (Delta=0.40 (1.11), p=.001), desire to self-manage (Delta= -.28 (1.18), p=.01), medical communication (Delta=-1.58 (7.31), p= -.030), and transitions management (Delta=-0.53 (2.13), p=.0130) significantly improved. We found increased knowledge of care options to be associated with decreased uncertainty (r=-0.215, p=.031), which was associated with decreased anxiety (r=-0.211, p=.031) and increased self-efficacy (r=-0.266, p=.0061). Median ratings (1-10 worst/best) of MCC were 8 on content and 9 on format. Participants reported enhanced communication with family and clinicians.

**Conclusions:** MCC improved key aspects of self-management, including knowledge of care options, which positively affected other potential enablers of self-management.

**Implications for Research, Policy, or Practice:** MCC requires testing in an RCT with a more diverse sample, but is a feasible means of enhancing self-management among patients, family, and clinicians.

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**Medication use among older patients receiving end of life care in the United States, 2007 (S789)**

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Objectives
• Appreciate the range of medications patients are taking at the end of life.
• Recognize differences in medication utilization by number and class by hospice diagnosis.

Original Research Background: Although hospice focuses on the palliation of conditions associated with the terminal prognosis, the potential continuation of preventative and disease-modifying therapies may put hospice patients at risk of polypharmacy.

Research Objectives: To describe medication use during the last week of life in hospice patients with cancer, dementia, debility, heart disease, and lung disease.

Methods: Retrospective cross-sectional study design of a U.S. nationally representative sample of 695 hospices in the 2007 National Home and Hospice Care Survey. Participants included 2,623 sampled patients ages 65 and older with an primary diagnosis of cancer (49%), dementia (12%), debility (14%), heart disease (16%) or lung disease (10%); receiving end-of-life care during their last week of life. Medication data were obtained from hospice staff familiar with the patients’ care and who were asked, “What are the names of all the medications and drugs the patient was taking seven days prior to and on the day of his/her death while in hospice? Please include any standing, routine, or PRN medications.”

Results: Overall, the average number of medications taken was 10.2 (from 9.5 among dementia patients to 11.4 among lung disease patients). Commonly taken drug therapeutic classes included analgesics (98%), antiemetics/antivertigios (78%), anxiolytics/sedatives/hypnotics (76%), anticonvulsants (71%), and laxatives (53%). About one-quarter of patients took proton pump inhibitors, anticoagulants, and antidepressants. Less than 20% took antacids and antibiotics. More cancer patients took opioid analgesics than dementia and debility patients. Heart disease patients tended to take diuretics, while lung disease patients tended to take bronchodilators. More dementia and debility patients took antidepressants than cancer and lung disease patients.

Conclusions: Older hospice patients took a high number of medications in the last week of life and differences in medication use support individualized care plans. It is unclear how this medication burden affects quality of end-of-life care.

Implications for Research, Policy, or Practice: Provides a benchmark for medication utilization for dying patients

A Systematic Review of Palliative Interventions: Populations, Intervention Components, and Healthcare Use and Cost (S790)
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Objectives
• Identify the extent of current knowledge of the populations appropriate for palliative care, components of effective palliative interventions, and the impact of palliative interventions on healthcare use and cost.
• Identify the areas of palliative care in need of additional research.

Systemic Review Background: Given limited resources for end-of-life care, payers and providers are increasingly faced by the questions of which interventions to deliver, which populations to focus on, and how to operationalize advanced illness. Existing standards and definitions of palliative care, which focus more on palliative care as an approach than as a set of services, require additional specificity in order to address these issues.

Aims: To identify the populations appropriate for palliative care; to identify the interventions and intervention components that are most effective in promoting better palliative care; to identify the impact of palliative interventions on healthcare use and cost.

Methods/Session Descriptions: Systematic review of RCTs using PubMed, Embase, PsycINFO, and Cochrane databases. Literature searches were conducted from January 2001 to March 2013 and addressed health services interventions in palliative populations, with either (1) HRQOL as either intervention or outcome or (2) healthcare use or cost outcomes. 14,961 original citations were reviewed, and 109 RCTs were included in the final set of articles.

Conclusion: Populations were typically identified using a combination of disease and severity; a minority of studies evaluated prognosis as an inclusion criterion. Single component interventions had limited effect on HRQOL; multicomponent interventions with medical and non-medical components across different healthcare settings were more successful. Behavioral support interventions improved psychosocial subjective outcomes but not observable outcomes. Almost no study demonstrated worsening in any HRQOL outcome, but there were many insignificant results; the clinical literature was heterogeneous and resisted easy parsing. Few studies addressed economic outcomes; of those that did, interventions that employed palliative care teams and/or emphasized communication, coordination, and caregiver inclusion generally had positive impacts on healthcare use.
Evaluating Hospice and Palliative Medicine Education in Pediatric Sub-Specialty Training Programs (S791)

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Objectives

• Assess formal Hospice and Palliative Medicine education currently in place in pediatric sub-specialty training programs.
• Assess attitudes towards and modalities utilized in HPM education for pediatric sub-specialty training programs.

Original Research Background: Hospice and Palliative Medicine (HPM) competencies are a growing area of importance in the training of other pediatric subspecialties. In 2009, the Accreditation Council for Graduate Medical Education (ACGME) provided further emphasis; stating that pediatric trainees should understand the “impact of chronic disease, terminal conditions and death on patients and their families.” Despite this emphasis, there may still be a continued deficit of formal HPM training in other pediatric sub-specialties.

Research Objectives: To identify the presence, teaching methods, and attitudes toward training opportunities in HPM competencies in pediatric sub-specialty training.

Methods: A Research Electronic Data Capture survey was sent via e-mail to all 287 ACGME accredited pediatric training program directors (PDs) in cardiology, critical care medicine (CCM), hematology-oncology (Heme/Onc), and neonatology (NICU) to assess demographics & HPM attitudes and education practices.

Results: The total response rate was 35.5% (102/287) with 17.6% Cardiology, 31.3% CCM, 22.5% Heme/Onc, and 28.4% NICU. Of these 102 programs, 46% offer formal HPM training; Heme/Onc (55%) the highest. HPM training commonly included conferences, HPM consultations and bedside teaching. 93.3% (14) Cardiology, 82.8% (24) CCM, 40.9% (9) Heme/Onc, and 75% (21) NICU programs do not offer a formal HPM rotation. 73% of programs felt that HPM curriculum would improve trainees’ ability to care for patients. Most [Cardiology (77%), CCM (82%) and Heme/Onc (95%)] agree that a HPM rotation would enhance trainees’ education, except for NICU PDs (55%) (p<0.05 for all comparisons).

Conclusion: Despite most programs reporting benefit from a formal HPM training, there remains a paucity of opportunities for pediatric subspeciality trainees. While there is differing aspiration for new training methods; there is significant opportunity to further emphasize HPM in other Pediatric specialty training.

Implications for Research, Policy, or Practice: Further investigation is needed into the current barriers to implementing training in HPM competencies, as well as into the impact on the trainees in other Pediatric subspecialties.

Dyspnea in Older Adults: Epidemiology and Outcomes (S792)

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Objectives

• Understand the prevalence of dyspnea in older adults.
• Understand the correlates and outcomes of dyspnea in older adults.

Original Research Background: Compared to pain, we know little about dyspnea, one of the most distressing symptoms in older adults.

Research Objectives: To ascertain the prevalence, correlates, and longitudinal outcomes of dyspnea.

Methods: We used the longitudinal Health and Retirement Study, a nationally representative survey of adults over the age of 50. Survey and peak flow assessments were conducted in person. We ascertained dyspnea using the 2006 question “how often do you become short of breath while awake?” We considered responses of “often” or “sometimes” to represent a level of dyspnea sufficient to warrant clinical attention (“rarely” or “never” = no dyspnea). We created a multivariable Cox Proportional Hazards model to report the risk of new or worsened disability in any of 6 activities of daily living and death over a four year time period
Results: Of the 7,315 subjects (mean age 67), 1,610 (22%) experienced dyspnea (5% often, 18% sometimes). Subjects with dyspnea were more likely to be female, have ever smoked, less than high school education, lower net worth, obesity, chronic lung disease, heart disease, depression, or cancer than subjects without dyspnea (all p<0.001). Eleven percent of subjects in the highest quartile of peak flow reported dyspnea; 22% of subjects in the lowest quartile did not. In multivariable Cox models adjusted for age, gender, race/ethnicity, education, and net worth, dyspnea was predictive of new/worsened disability (adjusted HR 1.43, 95% CI 1.22-1.67) and death (adjusted HR 1.59, 95% CI 1.28-1.96).

Conclusions: Over one in five older adults in the US experiences dyspnea. Older adults with dyspnea are about 50% more likely to develop new or worsened disability or die during the next 4 years.

Implications for Research, Policy, or Practice: There is no perfect test for dyspnea. As with pain, asking about dyspnea should be a routine component of care for older adults.

Hospice and Palliative Medicine Clinicians’ Attitudes towards Left Ventricular Assist Device Deactivation (S793)

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Objectives
• Describe commonly argued positions regarding the ethicality of withholding and withdrawing of life-sustaining treatments, with focus on LVAD.
• Articulate differences in perceived comfort with and ethicality of LVAD deactivation between surveyed HPM providers and cardiologists and identify opportunities for practice/quality improvement.

Original Research Background: Left ventricular assist devices (LVADs) can improve survival and quality of life for patients with advanced heart failure. Perspectives regarding LVAD deactivation may vary by provider specialty, practice setting, and personal preferences.

Research Objectives: To assess attitudes of hospice-palliative medicine (HPM) clinicians regarding end-of-life patient care with LVADs.

Methods: During November 2011, an AAHPM-approved, web-based survey was sent electronically to AAHPM members soliciting information regarding LVAD-related practices. Results were collected by Mayo Survey Research Center. All investigators were blinded to respondent identity. Results were analyzed using descriptive statistics or by Fisher’s exact test. Results: Overall, 137 responded; 122 were analyzed [AAHPM member and/or primary HPM clinical provider]. Response rate is uncertain as survey was sent via listserv. A majority of respondents were female (53%), physicians (93%), AAHPM members (95%), and practiced medicine 11 years (69%). More than half (58%) had cared for patients nearing death who requested LVAD deactivation; of these, 96% had assisted with logistics. Only 3% reported refusing such requests. 38% believed a patient must be “dying” to turn off their LVAD and 39% believed that HPM providers should be responsible for LVAD deactivation for their hospice patients. None viewed turning off LVADs as akin to euthanasia or physician-aid-in-dying, and only 29% and 27% believed patients sometimes should undergo psychiatry or ethics consultation, respectively (none responded always). For patients not approaching death, respondents reported requests to turn off LVADs should be always (27%) or sometimes (62%) be respected, and 80% perceived no or low legal risk associated with LVAD deactivation.

Conclusions: HPM clinician-respondents support the ethicality of LVAD deactivation in patients where the device no longer supports the patient’s goals of care. These results differ substantially from previously surveyed cardiologists, who reported higher rates of moral concerns.

Implications for Research, Policy, or Practice: HPM clinicians must be aware of these concerns and promote education, practice guidelines, and support for clinicians and patients facing end-of-life with LVADs.

Screening for Substance Abuse and Drug Diversion in Palliative Care Fellowship Programs (S794)

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Objectives
• Identify the presence of policies regarding substance abuse and diversion among palliative care fellowship programs.
• Report the frequency of programs who felt that substance abuse and drug diversion is a problem in their community.

Original Research Background: Data has been scarce about substance abuse and drug diversion in patients and caregivers of patients cared for by palliative care and hospice providers. A survey of palliative care fellows showed that 30% of their patients have a substance abuse disorder, majority of them are uncomfortable seeing these types of patients.

Research Objectives: To determine the frequency of written policies and procedures regarding substance abuse and diversion in palliative care programs.

Methods: We identified adult palliative care programs and their subsequent fellowship program directors through the database of the Accreditation Council for Graduate Medical Education (ACGME). An email survey sent to fellowship program directors regarding presence or absence of policies and procedures, regarding substance abuse and diversion. This survey was based on one study from Virginia hospices.

Results: Forty-two (44%) program directors participated in the survey out of 94 ACGME accredited Palliative Care Fellowship Programs. Almost half of responding physicians (47%) felt that substance abuse was a problem for their program. Only 40.5% of programs had written policies for screening patients for risk factors for opioid abuse and only 10.8% had a policy regarding screening family caregivers. Few programs have a policy regarding the use of opioids in patients who had a known or suspected history of substance abuse (18.9%), and even fewer (16.1%) had a policy regarding prescribing for patients whose family caregivers have a known history of prescription drug diversion.

Conclusions: Many palliative care fellowship programs felt problematic with regards to substance abuse and prescription drug diversion in their population. However, most do not have policies regarding substance abuse and prescription drug diversion.

Implications for Research, Policy, or Practice: There is a need for a consensus within the oncology, pain, and palliative care in addressing substance abuse and drug diversion with the focus of alleviating pain while balancing risk of patient safety with the decision to continue opioid therapy.

What is the Real Gain with Treatment? Assessing Quality of Life and needs of Older Patients with Prostate Cancer (S795)
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Objectives
• Discuss the importance of considering quality of life as a crucial factor when caring for older patients with prostate cancer.
• Acknowledge the importance of assessing performance status, social support, and the presence of an educated caregiver among patients suffering from prostate cancer.

Original Research Background: While prostate cancer generally runs an indolent course, many patients undergo treatment to cure or palliate symptoms caused by such malignancy. Previous studies have examined outcomes and quality of life (QOL) of men with prostate cancer, showing decreased QOL regardless of treatment, but not as it specifically relates to the elderly population and their needs.

Research Objectives: To evaluate QOL measures of older men (OM; ≥65) versus younger men (YM; <65) with prostate cancer before and after treatment. QOL-related variables evaluated before/after treatment included 1) performance measures: ECOG (Eastern Cooperative Oncology Group: 0 functional-5 being dead) and Karnofsky scores, 2) pain, 3) depression, 4) constitutional/other symptoms. Other variables included comorbidities, need for caregiver, and evidence of disease post-treatment.


Results: n=102. YM: n=51, mean age=58. OM: n=51, mean age = 71. Ethnicity: Hispanic (YM: n=20, 39%; OM: n=16, 33%) versus non-Hispanic (p=NS). 58% subjects were Stage II at diagnosis. There were no significant differences when comparing groups in regards to performance, symptoms, or comorbidities. However, this study found that the need for caregiver regardless of age was significant. Before treatment, 6% YM required a caregiver; post-treatment, 16% required a caregiver (p=0.0253). In OM, 13% required a caregiver pre-treatment and 23% required a caregiver post-treatment (p=0.0253) (Pr > ChiSq 0.5242).

Conclusions: A higher percent of OM required a caregiver after prostate cancer treatment when compared with younger men, indicating a greater decline in independence despite treatment.

Implications for Research, Policy, or Practice: Future prospective studies must routinely evaluate functional status, social support
Assessing the Preparatory Grief in Advanced Cancer Patients (PGAC) Instrument as an Independent Predictor of Distress in an American Population (S796)

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Objectives
• Understand the concept of anticipatory grief and the measurement of this with the PGAC instrument.
• Recognize that anticipatory grief is a significant contributor to patient distress and is distinct from anxiety or depression.

Original Research Background: Although the Distress Thermometer is used widely as a screening tool, there is little known about its association with anticipatory grief. Anticipatory grief, as measured by the Preparatory Grief in Advanced Cancer (PGAC) instrument, may be important to recognize and support during the trajectory of disease in advanced cancer patients.

Research Objectives: We aimed to assess the association of the PGAC instrument with the Distress Thermometer in a sample of American patients diagnosed with incurable cancer to determine if this instrument adds information beyond measures for anxiety, depression, symptoms, and other clinical/demographic variables.

Methods: Patients from Northwestern University in Chicago, IL completed a single survey composed of demographic data and scales including the PGAC, Distress Thermometer, HADS, ESAS, and QOL. We used pair-wise correlation measurements, which included p-value measurements for testing whether the correlation coefficient was significantly different from 0. Multivariate modeling was then used to adjust for potential confounding factors.

Results: 53 patients were surveyed, of which 57% (30) were outpatients. The PGAC score was positively correlated with Distress Thermometer (R=0.73, p=<0.0001), total HADS score (R=0.65, p=<0.0001), HADS-anxiety subscale (R=0.55, p=<0.0001), HADS-depression subscale (R=0.58, p=<0.0001), and ESAS score (R=0.49, p=0.0002) as well as negatively correlated with satisfaction with current QOL score (R=0.49, p=0.0003). The PGAC score was associated with Distress Thermometer (R²=0.71, p=0.009) after accounting for potential confounding variables including type of cancer, inpatient/outpatient status, anxiety, depression, and physical symptom ESAS subscales. Additionally, PGAC >21 (p=0.02) was associated with elevated Distress Thermometer score (p=0.02) and elevated HADS scores (p=0.04).

Conclusions: PGAC was correlated with distress scores even after accounting for anxiety, depression, physical symptoms, and clinical/demographic variables. This instrument may identify patients struggling with grief who don’t have anxiety or depression but may benefit from additional support/treatment.

Implications for Research, Policy, or Practice: Further investigation regarding clinical utility and discrimination in a larger patient population is warranted.

Quality of End-of-Life Care Provided to Patients with Different Life-Limiting Conditions in the Veterans Health Administration (S797)

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Objectives
• Characterize the proportions of Veterans who die in inpatient settings (hospitals or long-term care facilities) with different life-limiting conditions.
• Describe differences in the rates of key end-of-life care quality outcomes for patients with different life-limiting conditions.

Original Research Background: Historically, patients with cancer have been the primary focus of palliative and end-of-life care (EOL); however, the importance of EOL care for patients with other life-limiting conditions is increasingly recognized.

Research Objectives: To evaluate the quality of EOL care provided to patients with different life-limiting conditions within the nation’s largest healthcare system, the Veterans Health Administration (VA).

Methods: Utilizing telephone surveys with next-of-kin and chart reviews of patients who recently died in VA hospitals or long-term care facilities, we assessed reports of “excellent care” in the last month of life and frequent uncontrolled pain (pain that
“always” or “usually” made patient uncomfortable), as well as documentation of palliative care consultation. We used chi-square tests to compare outcomes for patients dying of six conditions: end-stage renal disease (ESRD), cancer, cardiopulmonary failure, dementia, frailty, and “other” causes.

Results: Among 33,475 Veteran decedents whose next-of-kin were surveyed (response rate 59%), 31% of deaths were attributed to ESRD, 36% cancer, 16% cardiopulmonary failure, 3% dementia, 6% frailty, and 9% other. The proportion of family members reporting that care in the last month of life was “excellent” was highest among those of patients with dementia (65%), and fairly similar among patients with cancer (59%), frailty (59%), ESRD (55%), and cardiopulmonary failure (57%) (p<0.001). Rates of frequent uncontrolled pain varied significantly by diagnosis (p<0.001), and were highest among patients with cancer (50%) and ESRD (46%), and lower, although still frequent, among patients with cardiopulmonary failure (42%), frailty (40%), and dementia (31%). Palliative care consultation rates varied significantly by diagnosis (p<0.001): for cancer 72%, dementia 67%, ESRD 55%, frailty 53%, and cardiopulmonary failure 51%.

Conclusions: Quality of EOL care varied by diagnosis and appeared highest for dementia and cancer patients, although cancer patients had high pain burden.

Implications for Research, Policy, or Practice: Additional efforts are needed to improve patients’ EOL experiences, especially for patients with ESRD, cardiopulmonary failure, and frailty.

Crises at the End of Life: How Prehospital Providers Respond (S798)
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Objectives
• Describe the distinct elements of prehospital providers’ assessment of a person who is dying from an advanced illness and his or her family.
• Identify the nature of crisis responses that families experience when someone is actively dying.
• Describe how the sources of conflict in emergency end-of-life calls influence decision making.

Original Research Background: Emergency calls to 911 are often made when the end stage of an advanced illness is accompanied by alarming symptoms and substantial anxiety for family caregivers, particularly when an approaching death has not been anticipated. Prehospital providers (Paramedics and Emergency Medical Technicians [EMTs]) are often the first responders to medical or caregiving crises that immediately precede death, yet how they manage end-of-life crises is largely unknown.

Research Objectives: The purpose of the study was to describe: (1) the decision-making process that occurs during emergency end-of-life calls and (2) how prehospital providers respond to families in crisis.

Methods: The study design was exploratory and cross-sectional. In-depth interviews were conducted with 43 prehospital providers. Interviews were audiotaped, transcribed, and submitted to iterative qualitative data analysis which involved systematic coding, collapsing conceptually overlapping codes, and axial coding to identify the distinct properties of each theme. Rigor or the trustworthiness of the qualitative data analysis was upheld by the use of co-coding, interdisciplinary triangulation, and an audit trail of analytic decisions.

Results: Four themes illuminated the unique nature of emergency end-of-life calls: (1) Rapid comprehensive assessment, (2) Family responses, (3) Conflicts, and (4) Management. Family caregivers who are providing care in the advanced stages of a life-limiting illness often do not understand the dying process and need validation. Prehospital providers provide support, validation, and assistance in decision-making about resuscitation and transport.

Conclusions: Witnessing the dying process is common for healthcare providers, while losing a loved one is a once in a lifetime experience for families with little preparation.

Implications for Research, Policy, or Practice: Hospice and palliative care practitioners can prepare families for end-of-life crises and decision-making through advance care planning. Policies about the documentation of patient wishes (or its absence) dictate emergency decisions in the field and can result in unwanted aggressive treatment and hospitalization at life’s end.

Considerations for Quality Improvement in Radiation Oncology Therapy for Patients with Uncomplicated Painful Bone Metastases (S799)
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Objectives

- Understand RAND/UCLA Appropriateness Method.
- Understand Choosing Wisely statements from AAHPM and ASTRO about radiation therapy for patients with painful bone metastases and how they are different.
- Understand reasons why radiation oncologists may choose not to use single fraction radiation for patients with advanced cancer and painful bone metastases.

Original Research Background: Although ASTRO guidelines support single fraction radiation treatment for uncomplicated bone metastases, it is rarely used.

Research Objectives: We used modified RAND/UCLA appropriateness methodology to understand how radiation oncologists make decisions about single fraction treatment to inform quality improvement.

Methods: We focused on uncomplicated bone metastases (defined by relevant RCT exclusion criteria) without prior irradiation, pathologic fracture, or spinal cord compression. Eight radiation oncologists with varying sub-specialties were provided ASTRO guidelines, a summary table of RCT's and recent research on current practices. They rated the appropriateness of 8Gy Single Fraction treatment and 4 alternative regimens for clinical cases before and after a panel discussion that also included three palliative care physicians. Clinical cases varied by location of metastases (spine, humeral head, femur, rib), size of metastases, patient prognosis, travel distance to treatment site, and patient age. We report findings based on final median appropriateness ratings and qualitative evaluation of discussion.

Results: Single fraction treatment (8Gy) was rated as the most appropriate treatment, regardless of other factors if prognosis was 6 months or less. However, participants noted that prognostic information is often not available at the point of care. Use of greater than 10 fractions was rated as inappropriate regardless of other factors. Older age and travel distance were factors that lead to favoring 8Gy single fraction treatment. There was less consensus concerning single fraction treatment and favoring of other treatment approaches for lesions located on the spine, especially large lesions, and for patients with oligometastases and a longer prognosis where goals may include local tumor control in addition to palliation.

Conclusions and Implications for Research, Policy, or Practice: Improving specification and communication of prognostic information is an important quality improvement target to enhance the patient-centered nature of care for patients with painful bone metastases.

Implementing Shared Decision-Making in Hospice Interdisciplinary Team Meetings (S800)

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Objectives

- Discuss the potential of telehealth solutions to support shared decision-making in hospice.
- List at least two barriers and facilitators to shared decision-making in hospice IDT meetings.

Original Research Background: While patient/family-centeredness is at the core of hospice, barriers exist to involving hospice patients and families in shared decision-making (SDM). Preliminary evaluation of the ACTIVE (Assessing Caregivers for Team Intervention through Video Encounters) intervention, which involves the use of video-conferencing technology to facilitate family caregivers’ virtual participation in hospice interdisciplinary team (IDT) meetings, has revealed its promise as a tool to promote SDM in the hospice setting.

Research Objectives: The overarching purpose of the study was to describe SDM as it occurred in ACTIVE IDT meetings. We sought to answer the following research questions: 1) To what extent were the essential elements of SDM present in ACTIVE IDT meetings? and 2) What were the barriers and facilitators to SDM in ACTIVE IDT meetings?

Methods: We conducted a content analysis of 100 video-recorded ACTIVE meetings to determine the frequency with which they included elements that have been identified in the literature as essential to SDM. We conducted a deductive thematic analysis of interviews of family caregivers (n=73), interviews of hospice professionals (n=78), and research field notes to identify barriers and facilitators to SDM in ACTIVE meetings.

Results: Most meetings in which problems were discussed included identification of possible solutions, provider recommendations, final decision-making, and development of follow-up plans. Fewer than half included discussion of the risks and benefits associated with solutions, clear incorporation of patient/family values, assessment of caregiver self-efficacy, or assessment of caregiver understanding. time, technological problems, and communication skill deficits were noted as barriers to SDM, while the interdisciplinary composition of the IDT and designated leadership were identified as facilitators.
Conclusions: SDM routinely occurred in ACTIVE IDT meetings and could have been enhanced by addressing barriers and facilitators.

Implications for Research, Policy, or Practice: Hospice providers interested in promoting SDM should consider adopting the ACTIVE intervention with adequate supports in place to maximize its full potential.

Inpatient Hospice: Continuous Quality Improvement to Optimize Care to Patients Dying in an Inpatient Setting (S801)
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Objectives
- Understand program for providing inpatient level hospice care in an academic medical center by partnering with a community hospice group.
- Understand barriers for transition to inpatient hospice care.

Original Research Background: We have recently implemented a policy and program for providing inpatient level hospice care in two academic medical centers by partnering with a community hospice group.

Research Objectives: We describe the first 5 months of our experience and barriers to transferring to inpatient hospice care among patients dying in the hospital.

Methods: An interdisciplinary palliative care team prospectively identified patients as meeting inpatient hospice criteria and followed the standard protocol for transition to hospice care in the inpatient setting. We report rates of transfer to hospice care among identified patients and barriers to transition to hospice care.

Results: During the first 5 months of this program, sixty-six adult patients were identified as meeting inpatient hospice criteria and were expected to die in the hospital. Almost all 88% (58/66) of these patients died in the hospital, but only 27% (18/66) were transferred to inpatient hospice prior to death. Of the 48 patients who did not receive inpatient hospice services, 16/48 (33%) were due to lack of enough time to complete hospice assessment and transition care to hospice team, 12/48 (25%) were due to refusal of hospice care, 7/48 (15%) were due to family not wanting to wait for hospice evaluation prior to palliative extubation, 6/48 (13%) did not meet criteria for inpatient hospice because symptoms were well controlled, and 4/48 (8%) of families were hesitant to transition care to a new team at the end of life.

Conclusions: Partnering with a community hospice to provide inpatient hospice is feasible in an academic medical center, but several barriers to transitioning care have been identified.

Implications for Research, Policy, or Practice: Interventions to improve timeliness of hospice evaluation may improve rates of inpatient hospice use.

The Impact of Schwartz Center Rounds on Moral Distress in a Large Healthcare System (S802)
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Objectives
- Define moral distress.
- Identify the value of the Schwartz Center Rounds upon moral distress.

Original Research Background: Moral distress occurs when someone knows the correct thing to do, but, because of some outside factors, is unable to do the right thing. Studies have shown that there is a correlation between moral distress and burnout. No prior studies have proven the impact of any particular intervention on moral distress levels.

Research Objectives: The study’s main purpose was to study the immediate effects of the Schwartz Center Rounds, a rounding system that focuses on exploring moral and ethical issues in medicine on moral distress, at one academic medical center.

Methods: This study was a longitudinal, quasi-experimental design. The sample used was a convenience sampling of Schwartz Center Rounds participants. The method of data collection was a two-part survey that was comprised of two Moral Distress Thermometer (MDT) readings (pre and post rounds) and demographic data. The rounds were conducted seven times during 2013.

Results: 415 individuals participated in the study, a 55% overall response rate. The mean pre-rounds Moral Thermometer (MT) value was 2.83 with a standard deviation (SD) of 2.25 and the mean post-rounds MT value was 2.80 with a SD of 2.22. There was
Unused Opioids: Prescribing Practices in Chronic Cancer Pain (S803)

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Objectives
- Recognize the importance of eliciting amount of unused opioids during the clinic visit.
- Discuss future directions for care of unused opioids.

Original Research Background: Most victims of the current epidemic of prescription pain medicine (PPM) overdoses are nonpatients, with 75% of overdoses attributed to opioids prescribed to someone else. Responsible prescribing of PPM should include monitoring the amount of unused PPM and reducing refills accordingly.

Research Objectives: The aim of this exploratory study was to estimate the amount of unused opioids prescribed for cancer pain at a comprehensive cancer center (CCC).

Methods: At each clinical encounter in one palliative medicine clinic at a CCC over a 3-month period, we documented consecutive patients’ self-reports of adequacy of pain relief and the number of short-acting opioids consumed. The amount dispensed was obtained from the state’s mandatory prescription monitoring program (PMP) and was compared to the patient’s report of the amount of short-acting opioid used, categorized by analgesic adequacy.

Results: Out of the seven of 33 (21%) patients reporting adequate analgesia, three patients (43%) reported using all of their short-acting opioids. Of the 26 patients reporting suboptimal analgesia, 16 patients (61%) reported using the entirety of that month’s dispensed opioids. The number of unused pills left in the medicine cabinets of patients with controlled pain ranged from 90 to 333 tablets of short-acting opioids. The remaining patients with uncontrolled pain reported unused opioids ranging from 33%-100% of the amount prescribed that month. Fear of side effects was cited as the main reason for underuse.

Conclusions: These preliminary data highlight the importance of reconciling the number of PPM taken by cancer patients with the amount prescribed.

Implications for Research, Policy, or Practice: Prescription adherence is methodologically challenging to research, but for controlled substances, PMP may be leveraged for this purpose. Other strategies to reduce risk of diversion to non-patients, e.g. returning unused pills, also need to be developed.

This is Not Only My Hero; This is a War Hero: How an Ethic of Heroism Shapes Next-of-Kin’s Perceptions of Veterans’ End-Of-Life Care in VA Medical Centers (S804)

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Objectives
- Gain a deeper understanding of and appreciation for how the cultural ethic value of heroism shapes family members’ expectations of end-of-life medical care in VA Medical Centers.
- Gain knowledge of how the ethic of heroism can inform initiatives to enhance practices and services related to end-of-life care in VA Medical Centers.

Original Research Background: Nearly 20,000 Veterans die each year in VA facilities. The Department of Veterans Affairs has long recognized that Veterans at the end-of-life have a unique requirement for care that recognizes the distinctive character of military service while providing state-of-the-art medical, psychosocial, spiritual and administrative supportive services.

Research Objectives: We examine next-of-kin’s accounts of Veterans’ hospital care during the last days of life to uncover underlying assumptions shaping family member’s experiences and perceptions of services provided by VA staff in clinical, social service, chaplaincy and administrative roles.

Methods: In 2005-2010, we interviewed 78 next-of-kin of deceased Veterans in 6 VAMCs. We used content analysis to examine
respondents’ accounts of their loved one’s end-of-life hospitalization. Data interpretation utilized the sociological perspective of symbolic interactionism to identify shared contexts of meaning employed by deceased Veterans’ next-of-kin.

Results: An ethic of heroism permeated next-of-kin’s accounts of Veterans’ end-of-life care, accompanied by the belief that Veterans deserve honorable, dignified, and exemplary treatment from VA staff. With few exceptions, next-of-kin expressed idealized views of military service, describing how it engendered devotion to duty, fostered a sense of patriotism, required selfless sacrifice, and created enduring bonds of loyalty. Next-of-kin’s recollections of the deceased’s final days and post-death services revealed the salience of Veterans’ lifelong affiliation with military branch of service.

Conclusions: Next-of-kin’s assumptions about Veterans’ end-of-life care are grounded in an exalted view of military service and shaped by an ethic of heroism which raises expectations that the VA staff will provide an exceptional level of end-of-life services to patients and family members.

Implications for Research, Policy, or Practice: Awareness and appreciation of assumptions shaping next-of-kin’s perceptions of Veterans’ care can shape the culture of end-of-life services in VA Medical Centers, informing initiatives for staff development and contributing to the growth of supportive practices aligned with next-of-kin’s perspectives on military service and expectations for dignified care that honors America’s heroes.

Reduction of Hospital Admissions for Outpatient Palliative Care Patients (S805)
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Objectives
• Identify that use of outpatient palliative care clinics can reduce subsequent hospital 30 day readmissions rates.
• State why hospital systems need to decreased 30 day readmission rates to the hospital for Medicare patient due to cost concerns.

Background: Outpatient palliative care clinics (OPC) meet the needs of seriously ill patients and their families by addressing unmet symptoms and psychosocial needs. These clinics also have the potential of reducing unnecessary admissions/re-admissions to hospitals for issues that can be addressed just as effectively in the OPC, at a significant cost savings. With many hospitals needing to find ways to reduce 30 day readmission rates for Medicare patients, OPC may be one way to address this issue for seriously ill patients.

Research Objectives: Identify patients that received a palliative care inpatient consult and had subsequent follow-up with OPC. To compare readmission rates of these patients before and after being seen in the OPC, and determine if the OPC services could reduce the 30 day readmission rate for these patients.

Methods: Retrospective study of patients seen by inpatient palliative care who were subsequently seen in OPC matched to themselves. De-identified data from October 2011 thru March 2014 to compare readmission rates of patients seen in the OPC during the time frame March 2012-October 2013.

Results: n=104. Women=49 (47%). Mean age=53 years, range 22-78. Hospital admissions Mean=4.03 (range 1-30) before 1st OPC visit versus 2.3 (range 1-6) after (p=0.0448). Mean clinic visits/patient=2.85; Range 1-25 and mean hospital admissions =3.57; Range 1-25. 8 patients died in the hospital after being seen in the OPC. After excluding patients who died within time frame, n=79; Mean Age = 51 years; Range  = 22-72 years; There was mean=2.71 hospital admissions before 1st OPC visit versus 2.44 after (p=0.0181).

Conclusions: Our OPC significantly decreased subsequent hospital admissions for patients even after excluding those patients who died within the study time frame. OPC services have the potential to reduce 30 day hospital readmission rates, creating additional cost savings for hospital systems. Future studies are needed to investigate the effects of OPC on patients’ satisfaction, symptom control, and other needs.

Characteristics of the Oldest Old Referred to a Palliative Care Consultation Team (PCCT) in a Community Hospital (S806)
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Objectives

- Appreciate the diversity and complexity of the oldest old admitted to the hospital.
- Describe implications and opportunities to improve care of the oldest old.

Original Research Background: The oldest old cohort is the most rapidly expanding population in the USA. There are currently 5.5 million in the USA. This number will quadruple by 2050. There is an anticipated addition of 10 years to life expectancy upon reaching 85. Many factors influence quality of life and survival including multiple chronic illnesses, functional decline, frailty, and geriatric syndromes.

Methods: South Nassau Communities Hospital has 400 beds with a comprehensive cancer center, a cardiovascular institute, and 26 critical care beds. The hospital has a medical school affiliation and training programs in family medicine and surgery. The PCCT consists of a physician, nurse practitioner, and social worker, each trained and certified in palliative care. From Mar 3rd- Apr 15th 2014, 56 patients 85 years and older were referred and 54 of the 56 were followed for survival at 3 months. The following characteristics were discovered: 1) avg age 88; 2) female/male 0.9; 3) sites of referral, medicine 75%, critical care 22%, ED 3%; 4) reason for referral, goals of care 79%, imminently dying 11%, withdrawal of life support & symptom management, each 5%; 5) primary illness, cardiac 30%, pulmonary 22%, sepsis 20%, CA 13%, renal, 9% & neurologic 6%; 6) avg # of comorbidities, 4.7; 7) avg KPS 20%; 8) incapacitated, 84%; and polypharmacy, 88%; 8) survival: 43 (83%) had died by 3 months; 18 during original hospitalization, 13 in inpt hospice, 12 other settings; 9 (17%) were alive at 3 months, 5 with homecare hospice, 3 in ltc & 1 at home without services.

Conclusions: The oldest old are an extremely vulnerable population with high mortality, profound debility, and are commonly incapacitated.

Implications for Research, Policy, or Practice: Apply comprehensive palliative care & geriatric assessments to all admissions of the oldest old.

Targeted Therapy at the End-of-Life and the Impact on Healthcare Utilization (S807)

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Objectives

- Describe the use of targeted therapy in cancer treatment at the end-of-life.
- Identify the patterns of healthcare utilization observed at the end-of-life for those treated with chemotherapy and targeted therapies.

Original Research Background: The use of targeted therapy has steadily increased over the past decade, though the impact of targeted agents on patterns of care at the end-of-life remains unknown.

Methods: We identified 14,398 patients from the SEER-Medicare linked database with metastatic breast, lung, or colorectal cancer diagnosed between 2000 and 2009 who received conventional cytotoxic chemotherapy or targeted therapy in the last 3 months of life. Multivariate logistic and linear regression models were used to determine the impact of targeted therapy on the following endpoints in the last 3 months: emergency department (ED) visits, hospitalizations, and hospice utilization. Analyses were adjusted for differences in patient age, gender, race, comorbidity, socioeconomic status, and geography.

Results: Among the whole study cohort 83% of patients received chemotherapy alone, 12% received chemotherapy with targeted therapy, and 5% received targeted therapy alone. The delivery of any targeted therapy in the last 3 months increased across the study period, from 1.5% in 2000 to 28% in 2009. Compared to patients treated with chemotherapy alone, those treated with targeted therapy alone had lower rates of ED visits (adjusted odds ratio [aOR]=0.81, p=0.01), lower rates of hospitalization (adjusted odds ratio [aOR]=0.69, p<0.0001), no difference in overall hospice utilization rates, though had longer stays on hospice (5.1 days longer, p<0.0001). Compared to patients treated with chemotherapy alone, those treated with both chemotherapy and targeted therapy had no difference in ED visits or hospitalizations, though had decreased rates of hospice utilization (aOR = 0.79, p<0.0001), and shorter stays on hospice (2.7 days shorter, p<0.0001).

Conclusions: This study found that targeted therapy was associated with varying patterns of healthcare utilization at the end-of-life.

Implications for Research, Policy, or Practice: Future research is needed to define the impact of targeted therapy on quality of life at the end-of-life.
“It’s About the Conversation”: A Multidisciplinary Intervention to Support Advance Care Planning (S808)

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Objectives
• Understand how the “Go Wish” card game is played.
• Describe how various forms of media can be used to advertise and effectively engage patients, caregivers, and staff.

Original Research Background: A recent California Healthcare Foundation study found 60% of Californians highly valued “making sure their families are not burdened by tough decisions about their care.” However, less than 50% have communicated end-of-life (EOL) wishes to their surrogate decision maker. 82% say it is important to have EOL wishes in writing, but only 23% say they have done so. At City of Hope (COH), the advance directive (AD) completion rate is less than 15%.

Research Objectives: The event should engage patients and staff in advance care planning (ACP) conversations and increase AD completion.

Methods: A multi-disciplinary team designed a social media advertised 4-hour interactive event. Over 40 staff and volunteers facilitated individualized ACP conversations, private consultations with social workers, showed novel COH ACP videos, provided multi-lingual ACP literature and AD documents available for completion with complimentary notary support on-site.

Results: Over 300 people attended. 47 ADs were completed (24 by patient/caregivers, 23 by COH staff). 29 Go Wish games were facilitated (2 in Spanish). Of 52 attendees who completed exit evaluations, 44% were patients, 31% staff, and 11% were caregivers. Respondents reported the event increased their comfort and likelihood of having ACP conversations with others. Importantly, 38 of the 52 surveyed did not have an AD prior to attending the event. Of those 38 attendees, 18 of them completed an AD at the event (or 47%).

Conclusions: ACP is an all too often avoided conversation that results in increased distress of patients, families, and providers. By proactively designing opportunities for facilitated conversations in dynamic and public arenas, fear and stigmas are diffused and the true focus and intent of discovering what people wish so the medical team, surrogates, and family can ensure their values are honored and met.

Implications for Research, Policy, or Practice: Further research is needed to effectively engage patients, caregivers, and staff in ACP.

Is There a Demand for Mobile Application Development in Palliative Care? The Palliative Care Fast Facts for iOS story (S809)

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Objectives
• Provide a broad overview of the development process of the fast facts mobile application.
• Create an example of a palliative care focused application that can inspire the creation of future applications by others.

Original Research Background: In 2013, an ePocrates Mobile Trend Report predicted that in the coming year, nine out of ten healthcare providers will use smartphones. Of these, 88% will use their smartphones for search or reference in relation to their jobs. To date, a lack of native palliative care mobile applications can be seen on the most popular smartphone application stores. This lack of quality palliative care applications conflicts with the rising utilization of mobile devices in the clinical setting. We attempted to address this issue by releasing an iOS native application of the EPERC Fast Facts database and evaluate demand for palliative care focused mobile applications.

Research Objectives: Evaluate demand for mobile palliative care applications.

Methods: A core development team consisting of one physician and one senior programming student collaborated over the course of a six month development timeframe to create the final released application. On May 1st 2014, the application was released free to the Apple app store. Multiple methods of advertising the release of the application were utilized including Twitter, forum posts, and announcements on palliative care allied websites.

Using Apple provided metrics reported via itunesconnect.apple.com, the development team was able to quantify demand for one palliative care mobile application.

Results: There have been over seventeen hundred downloads worldwide since the initial release. The average download rate for the application is 18.6 new downloads a day with minimal marketing after the initial release window. Over thirteen hundred downloads of the application originated in the United States and Canada.
Conclusions: Overall response in number of downloads and new user adoption of the application suggest that there is a demand for more high quality palliative care applications in the future.

Implications for Research, Policy, or Practice: Further palliative care application development is warranted.